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JPRS-EEI-84-054

9 May 1984

East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

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9 May 1984

EAST EUROPE REPORT

ECONOMIC AND INDUSTRIAL AFFAIRS

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GERMAN DEMOCRATIC REPUBLIC

GDR CITIZENS ALLOWED TO MAINTAIN BANK ACCOUNTS IN FRG

Duesseldorf WIRTSCHAFTSWOCHE in German 23 Mar 84 p 187

[Unsigned Article: "What is Allowed"]

[Text] GDR residents may maintain giro [checking], time deposit, and savings accounts as well as security deposits in a bank in the Federal Republic.

The so-called DM GDR accounts are subject to foreign currency restrictions through the Deutsche Bundesbank [German Federal Bank]. For reasons of security and for the protection of the depositor it is advisable to channel correspondence through a contact in the Federal Republic.

The following dispositions are generally authorized without upper limits for accounts maintained by residents of the GDR: payments for taxes, dues, and legal costs -- provided that the holder of the account, or a member of his family residing in the GDR, has such obligations in the Federal Republic. Also authorized are contractual payments to insurance companies and to building and loan associations, payments in connection with ownership of real estate in the Federal Republic, and fees of attorneys or notaries in the Federal Republic. Withdrawals for personal use are, of course, generally authorized; limits are set, however, on such withdrawals. The holder of an account visiting here may make withdrawals totalling 2,000 marks from his account each calendar month. If accompanied by his spouse, the holder may withdraw up to 4,000 marks. An additional 500 marks a month is exempt from restrictions and may also be withdrawn, through power of attorney, by someone in the Federal Republic. This sum may be used to purchase items for personal use.

Securities, such as stocks, investment certificates, and certificates of deposit, may be acquired or sold for GDR residents provided that settlement is made through DM GDR accounts. The custody and administration of such an account includes the redemption of interest and dividend coupons for the DM GDR account of the holder and also crediting the account with payments due. The financial institution administering the account may exercise the right to vote shares.

As persons with limited tax obligations, GRD residents are subject to special regulations. For example, they need not pay coupon tax when credited with interest of securities with fixed rates; conversely, no allowance is made for deductible corporate tax credits.

GERMAN DEMOCRATIC REPUBLIC

APPRENTICE TRAINING TO STRESS VERSATILITY, CREATIVITY

East Berlin TRIBUNE in German 4 Apr 84 pp 1-2

[Unsigned Article: "Qualification in 300 Skilled Trades"]

[Text] About 189,000 young GDR citizens will begin training in one of more than 300 skilled trades in September. At that time a total of about 418,000 youths will be trained to be qualified and to be communists. All of them are assured jobs upon completion of the training.

Guidelines for the preparation and implementation of political education and subject training were given on Tuesday for the 1984/1985 teaching and training year during a conference in Berlin. Invitations to attend were issued jointly by the state secretariat for professional training in the GDR, the federal executive committee of the Free German Labor Union [FDGB], and the central committee of the Free German Youth [FDJ]. State functionaries and representatives of social organizations responsible for professional training participated. They discussed immediate steps as well as long-term tasks relating to the action plan for further improvement of professional education in the GDR adopted in December of 1983. This plan specifies tasks for the period of the next five-year plan, and its consequences reach far into the nineties.

State Secretary for Professional Education Bodo Weidemann emphasized in his speech that versatility, mobility, and creativity will become more and more the benchmark of quality in professional education. He pointed to the importance of farsighted direction of education and continued education and of adjusting the emphasis in professional education to the changing conditions of production, thereby guaranteeing the necessary increase in productivity for the national economy. All participants could find support here in the social accomplishments and the results and experiences of 35 years of successful growth in professional education which is based on the high achievements of the poly-technical high school in providing a comprehensive education.

Weidemann further commented: While, for instance, only about 20 percent of the working population was trained in a skilled trade in the fifties, by the preceding year this had increased to more than 63 percent. Professional training in the GDR, which is closely linked to the national economy,

assures a high degree of flexibility and also finds considerable international recognition. Professional education is characterized by providing a proper balance between laying a broad foundation and specialization in theory and practice. A basis for a purposeful continued education is thereby provided.

The subsequent discussion dealt with further increases in the quality and effectiveness of professional education. Werner Meyer, general manager of the VEB collective combine NARVA, "Rosa Luxemburg", pointed out that 860 apprentices of the collective combine find it necessary to become familiar with new technologies, develop new techniques in the MMM [fair of the masters of tomorrow] movement, work with them and be able to handle them.

Rainer Huhle, secretary of the central committee of the FDJ, spoke about socialist professional competition of the apprentices. In this context it is important, among other things, to involve the young people more in mastering scientific-technical advances. Dr. Harald Buehl, member of the presidium and secretary of the federal executive committee of the Free German Labor Union Federation [FDGB], spoke of the responsibility of the labor union leadership to draw apprentices into the affairs of members in such a way that they will grow into confident skilled workers who will approach their tasks with a high degree of commitment.

12628

CSO: 2300/409

USE OF QUALIFIED UNIVERSITY GRADUATES QUESTIONED

Rostock OSTSEE-ZEITUNG in German 31 Mar/1 Apr 84 supplement p 3

[Article by Prof. Dr. P. Voigt: "Socialist Social Policy Can Only Endure if All Work Efficiently"]

[Text] No other political thesis in recent years is likely to have been so often cited, discussed and perhaps even misunderstood as the one saying that we have to envisage the most important tasks in our social development always through their unified economic and social policies and seek appropriate solutions for them.

For all that, social policy is not--as one can sometimes hear in ordinary discussions--an "invention" of the Eighth SED Congress. For our party, economics has always been a means to an end, to improving the life of the masses, to developing socialist stability. As long ago as in 1946 the SED came out with "sociopolitical guidelines" in which the problems of social welfare and the right to work, health protection and family care, housing, the democratization of the economy and other things are anchored. In that light, the eighth party congress resolution on our unified economic and social policies constitutes a commensurate step in our sociohistoric continuity. Its novel quality consists in that now it is no longer merely a matter of securing subsistence needs, but of social security and the steady elevation of the material standard of living for the people's masses; and all that under much more complicated overall domestic and foreign economy conditions.

In this--and that can be observed in our daily mass political activity--we always point out the close connection between socialist social policy and the development of socialist consciousness and social activity. This connection has to be understood both as the objective as well as the yardstick for the effectiveness of social policy. That means practically that a citizen of a socialist state must be able to experience in concrete social terms what the results of socialist power relations are that benefit him and his family, finding his own interests reflected by official policy. On the other hand--and that is by no means less important--he must experience in concrete social terms that of our social policy only that can be realized which has been economically produced. He must realize that socialist social policy can only endure if all work efficiently. Precisely in these connections we find some of the problems that are affecting us now as a society.

The relations between economic development, social measures and public conduct constitute an exceedingly complex process. In part it is a contradictory process the inherent inevitabilities of which we by no means always know. That is why in social science research we must always be oriented to those sets of problems and prepare appropriate analyses.

If I now demonstrate the whole complexity of that problem by adducing some examples from the public domain of labor, I do so mainly because there in particular can the socially overlapping considerations be demonstrated.

A first example: Labor not merely forms the basis for ensuring the people's material needs. It also embodies a significant factor in social integration. Through labor, the system of social relations with the societal environment is, by and large, developed, democratic activity being realized and political functions assumed. Through constitutional guarantees for the right to work our society fulfills a high sociopolitical demand. In an official sociological survey, more than 90 percent of the workers, cooperative farmers and intellectuals queried considered job security ensured among all the other effects of scientific-technical progress in socialism. How high a demand made on society this is! So let us remember: Ensuring full employment is no "gift from God." Enormous economic efforts are going to be needed to reemploy labor released through rationalization effects proper as to qualifications.

A second example: It is good that many people in the country regard job security as an elemental basic value of socialism. Yet no one should assume an automatic connection between accepting this basic social value and the shaping of a commensurate performance attitude at work. For example, 1982 saw an average of 4 hours missed per full-employed unit in our country and up to 50 "hours of idling" in "top positions." Those are eloquent signals, it seems to me. One might come up with the thesis that under certain conditions guaranteed social society might affect the performance attitude with some sloppiness. Granted, that is only a thesis. Yet it is one that should not be supposed to be alien to our life per se. The unity of economic and social policy under this aspect means: only someone who works properly may consider himself socially safe.

A third example: Undoubtedly the GDR is among those countries where education and skill embody a stable element in the value orientations of many people. This marks an important potential for solving scientific-technical development problems. It must give us food for thought, however, that at present only 25 percent of the college and technical school graduates are assigned in line with their qualifications. It must concern us in two regards, the waste of social educational investments and its unfavorable ideological ramifications. We have to learn to work more efficiently with our educational potential. Education and skills are an aggregate of social labor capacity. We must more definitively determine the actual demands made on skills (especially for their dynamism) and analyze why college and technical school graduates only to a limited extent get the jobs in which they are truly needed, and finally we must determine which incentives will have to be developed to induce enterprises to make the most rational use of their college and technical school personnel. That has a lot to do with the unity of economic and social development.

One other thought finally: Practically enforcing the right to work, especially for our women, is an important condition for their complete emancipation. Nearly 85 percent of the women who can work do so. The percentage of women working in the economy comes to 49.9 percent. That shows how successful our social development has been and shows, not last, the noteworthy results of a target-directed social policy. And still, many problems have yet to be resolved here. They mainly result from the dual burdens placed on women having a job and a family. There are objective reasons for them (e.g., the still inadequate infrastructure provisions in some residential areas, and others) as well as subjective ones (one-sided role and function distribution among the family members, and so forth). In consequence of many different "individual solutions" for this problem of dual burdens, right now more than 30 percent of the working women in the GDR work part-time, the proportion of women in managerial and top positions is still very small, and while the proportion of women in semi-skilled activities is higher than that of the men, , women get an hour less of leisure time daily than the men, and so forth.

The unity of economic and social policy in this regard means doing everything to reduce these social differentiations between the sexes further, whereby to enhance the profile of social development as such. Still, we should indulge no illusions about the time frames within which such penetrating changes can be made to work. This much is certain: We have by no means yet fully employed all the incentives possible, yet a relevant sighting of the problem is one step toward progress!

5885

CSO: 2300/425

RECENT, PROJECTED ADVANCES IN STEELMAKING DETAILED

Katowice HUTNIK in Polish No 2, Feb 84 pp 67-70

[Report by Helmut Burghardt, PhD, Freiberg Mining Academy, given during the observance of "Steelworkers' Day" at the Steelworking and Mining Academy in Krakow in May 1983: "Development of Steelmaking in the GDR"]

[Text] In 1981 the German Democratic Republic produced 7.5 million tons of steel and occupied 21st place in the world in steel production [1]. World steel production for 1981 was structured as follows: 55.9 percent by the basic oxygen process, 22.1 percent in electric arc furnaces, 21.8 percent in open hearth furnaces. Conversely, in the GDR it is structured as follows: 60.8 percent by the open hearth process, 28.6 percent by electric arc and plasma furnace, 9.0 percent by the bottom-blown converter process.

Due to the energy and raw material situation in the GDR it is expected that the open hearth process will continue to play an important role over the next few years. The open hearth furnaces in the GDR are used exclusively to reprocess scrap which forms 70 percent of the charge, the remaining 30 percent being made up of solid pig iron. The use of gaseous oxygen to speed up the melting of the charge or refining the bath is uneconomical in these circumstances. For these reasons the efforts of metallurgists have been concentrated on intensifying the open hearth process in high-yield furnaces of the Brandenburg system. (Figure 1) [2, 3]. This furnace is characterized by the basic refractory lining and segmented construction of the front and rear walls. It is equipped with a single-channel furnace block and chambers which have two air draws. The furnace is fired using natural gas (60 to 70 percent) and fuel oil (30 to 40 percent). For this purpose a special three-stage burner was constructed to allow the firing of the furnace in selectable steps from 100 percent natural gas to 100 percent fuel oil [3]. Studies are presently being conducted with the aim of further reducing the amount of fuel oil used while maintaining the furnace yield.

Due to the fact that, in the reprocessing of scrap with the addition of solid pig iron in the charge, the periods of charging and melting are the longest, special attention is given to minimizing these periods in this process. To this purpose, through optimizing the charging time, conditions were created for using the maximum heat load during the melting of the charge. A detailed program for the heat work of the furnace has been worked out; this is now being prepared so that computer guidance may be used. During the charge

melting period it is possible to utilize an additional natural gas burner mounted in the furnace end [3]. This burner is moved into the furnace work area at an angle between 12 and 15 degrees and is used for 50 to 200 minutes to heat the solid charge additionally during the melt period. This method is used to increase the heat load of the furnace during the melt period and it increased the yield, which rose from 20 tons/hour in 1972 to 25 tons/hour in 1981 (Figure 2). Table 1 presents the various technical and economic indicators for selected open hearth furnaces in the GDR. The steel production program for open hearth furnaces in the GDR encompasses mainly carbon steel with low and medium carbon content and low-alloy steels.

After the top-blown basic oxygen process facilities are brought on line (in 1985) at Eisenhuttenkombinat Ost Eisenhuttenstadt, a gradual decrease in the production of open hearth steel from 4.45 to 1.8 million tons (that is, from 60.8 to 25.0 percent) is envisaged.

In the steelworks and foundries of the machine building industry in the GDR 52 electric arc furnaces are in use. The capacity of these furnaces ranges from 4 Mg to 125 Mg. The majority of these furnaces were brought on line in the 1950's. The yield of the older furnaces was improved by raising transformer capacity, rebuilding the high current circuitry, and improvements in electrode working parameters.

The time utilization coefficient was raised through the use of partitioned arc furnace shells. With the exception of the newest furnaces of 60- and 125-Mg capacity, the remainder, i.e., half of the operating furnaces, have an actual operating power that averages from 250 to 350 kW/Mg. An indicator of the economic usage of energy is the amount of energy used to melt the solid charge. This indicator ranges from 400 to 500 kW/t and is almost independent of furnace size. Because of the varied program of steel production and different varieties being produced, it is impossible to make general comparisons concerning energy consumption (Table 2).

The charge consists of scrap with a maximum of 10 percent pig iron. Sponge iron is used only in furnaces with a capacity of 125 tons. Single slag layer technology is used in making common carbon construction steel, and double slag layer technology is used for high quality alloy steels. The technology for recovering steelmaking from high alloy scrap with limited steel refining is used only at the Specialty Steelworks in Freital.

Electrode consumption varies between 4 to 9 kg/Mg of steel. Electrodes with a diameter of over 500 mm which are used in the high yield furnaces with a capacity of over 50 tons are imported from other countries. The increase of the costs in manufacturing these electrodes has caused an increase in the costs of manufacturing steel.

For many years, in order to cut down rebuilding time, arc furnaces in the GDR have used segmented shells. This has caused the use coefficient to rise to a point where 97 percent of the calendar year is utilized. The refractory lining of the furnaces consists of tar-dolomite or magnesite shapes. The hearth is constructed from magnesite or dolomite grit. The roof is constructed from silica materials. High yield furnaces in Brandenburg

have a capacity of 125 Mg and are equipped with box coolers (Figure 3) [not reproduced]. In comparison with an uncooled refractory lining the additional energy consumption is about 11kWh/Mg [6].

Three furnaces at the Hennigsdorf steelworks with a capacity of 60 Mg each were equipped with water cooled roofs and walls near the end of 1982. At this time no new construction of electric furnaces is foreseen in the GDR.

The development of plasma furnaces in the GDR started in the mid-1960's. In 1972 a 10-Mg plasma furnace was brought on line, and in 1977 a second with a 30-Mg capacity. The basis for constructing the shell was an arc furnace in which the original electrodes were exchanged for plasma burners. A satisfactory yield and endurance of the refractory lining were obtained only when the burners were angled in relation to the furnace walls [7, 8] (Figure 4) [not reproduced]. The plasma burners operate from a direct current supply. In a three-burner arrangement the maximum energy consumption is 9 MW or 15 MW in the case of the 30-Mg capacity furnace. This has permitted the enlargement of the furnace from 10 to 15 Mg, and from 30 to 35 Mg. In the plasma burner the gas used is argon. The anode (bottom electrode) is located in the furnace hearth and consists of a water-cooled copper block which is equipped with a temperature measuring apparatus.

The results of experiments conducted during the operation of the 10-Mg capacity furnace were utilized in the construction of the 30-Mg capacity furnace. The design of the burners was improved and four burners were installed, three of which are used alternately. This assures an even melting of the scrap. The refractory lining is made from magnesite-chromite material of high quality. The roof of the furnace is constructed from magnesite-chromite shapes.

Figure 5 shows a comparison of melting the charge and using electrical energy in an arc furnace of 35-Mg capacity and a plasma furnace of the same capacity (while making steel with a 0.16 percent carbon and 1.25 percent chromium content).

The plasma furnace distinguishes itself with a better yield during the melting stage with slightly higher energy consumption. It was possible to reduce argon consumption from 8m³/Mg to 6m³/Mg. Both furnaces produce a wide selection of steels, about 100 varieties. The 15-Mg capacity furnace produces about 90 percent high alloy steels, nickel alloys, materials for heating elements, and materials designated for fixtures used in atomic generating plants. The 35-Mg capacity plasma furnace chiefly produces alloy steels for carburization and heat treatment, soft steels, and small quantities of high alloy chrome steel and chrome-nickel steel. The technology depends on melting scrap under two slag layers with a charge consisting of alloyed and unalloyed scrap. The high yield of the process is obtained through selecting the optimum combination and content of the scrap. This scrap consists of rolling mill scrap, light scrap, and charge postabsorption scrap which is used up to 6 Mg.

The absence of graphite electrodes permits the economical manufacture of ELC (extra low carbon) steel with the use of a large number of alloy constituents thanks to the protective action at the burner. A major trait of the plasma furnace is the low level of noise (constant level being at 80 dB/A) and the absence of surges on the electrical supply network which are common to an arc furnace.

In the GDR 670,000 tons of steel are produced annually in bottom-blown converters. A variation of this method called QEK (QEK-Verfahren) was developed at the Maxhütte Unterwellenborn in the GDR, where it replaced the Bessemer process. The process is used in three converters, each with a capacity of 25 Mg, in which high-sulfur pig iron is blown with approximately 55 Nm³ of oxygen per ton of steel. The nozzles are cooled through the use of an open cooling system which uses liquid hydrocarbons (fuel oil--at about 2.8 liters/Mg of steel). Use of scrap in the charge is at 16 percent, which is lower than in an LD basic oxygen converter. Through the use of a bottom-blown converter better stirring of the bath and better metal yield is obtained. The actual time for blowing oxygen is 18 minutes, while the total time for the heat is 40 minutes. To remove hydrogen the metal bath is blown with nitrogen at 2 Nm³/Mg of steel.

The top-blown basic oxygen process (LD) is not presently in use in the GDR. In 1985 it is expected that the basic oxygen process will be brought on line at the Eisenhüttenkombinat steelworks. Annual production is to reach about 2.3 million tons. At that time 40 percent of the steel in the GDR will be made by the basic oxygen process. Presently raw pig iron is poured into pigs and processed in open hearths. In the future desulfurization will be done at the basic oxygen steelworks in mixing ladles with 230 Mg capacity by blowing in powdered lime. Then the desulfurized raw iron will be refined into steel in two LD converters of 210 Mg capacity. For some varieties of steel further processing outside the furnace is foreseen, the aim being further desulfurization or vacuum degassing on RH equipment. The steel will be cast on a two-strand continuous slab caster which will produce slabs with a thickness of 200, 250, and 300 mm and a width of 1,000 to 1,800 mm. Casting will also be done on a six-strand caster which will produce a shape ranging from 200 by 200 mm to 300 by 380 mm [9].

During the last 25 years much equipment has been developed for metallurgy outside the furnace. This is used to improve steel quality and increase furnace yield. Among these processes are vacuum degassing, argon steel refining, and blowing powdered materials into the molten bath.

Besides the equipment now being built in the GDR for metallurgy outside the furnace, refining of steel with argon has been used for several years in ladles with a capacity of 180 Mg and in continuous casters. Argon and nitrogen are used for this purpose. During ingot production at the steelworks and rolling mill at Grotitz vacuum degassing on RH equipment is used to reduce hydrogen content. In the Thalmann Heavy Machinery Building Enterprise in Magdeburg a vacuum chamber is used for degassing. In the Specialty Steelworks in Freital VAD equipment with a 40-ton capacity is being installed instead of a vacuum chamber. Its startup was forecast in 1983. The steelworks in Brandenburg is equipped with apparatus for blowing powdered materials into the ladles. This equipment is of the "Scandinavian Lancers" type.

In 1981, 84 percent of the steel manufactured in the GDR was cast the conventional way into molds, the remainder being cast on three continuous casters which produced shapes with dimensions of 110, 125 and 200 mm.

Summation. At the beginning of this presentation the amount of steel produced on various types of equipment around the world was shown. Steel production in the GDR was presented against this. From this comparison the importance of the open hearth process in the total makeup of steel production in the GDR can be appreciated. After this the development of arc furnace steelmaking and the plasma furnace were described. The general characteristics of the bottom-blown converter process was outlined and information on the plans for building the top-blown basic oxygen facility at Eisenhüttenstadt was presented. At the end the processes for refining steel outside the furnace and casting it were mentioned.

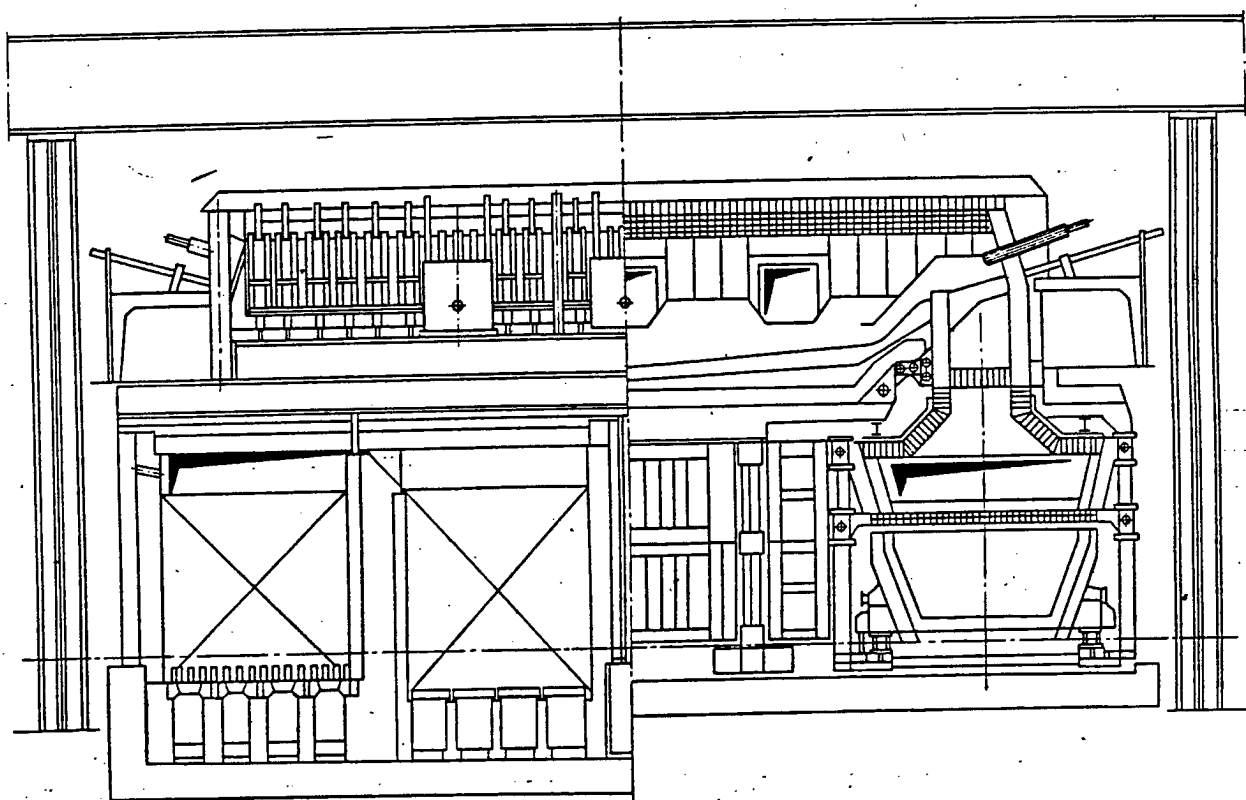


Figure 1. Longitudinal cross section of a modern "Brandenburg System" open hearth furnace according to [2]

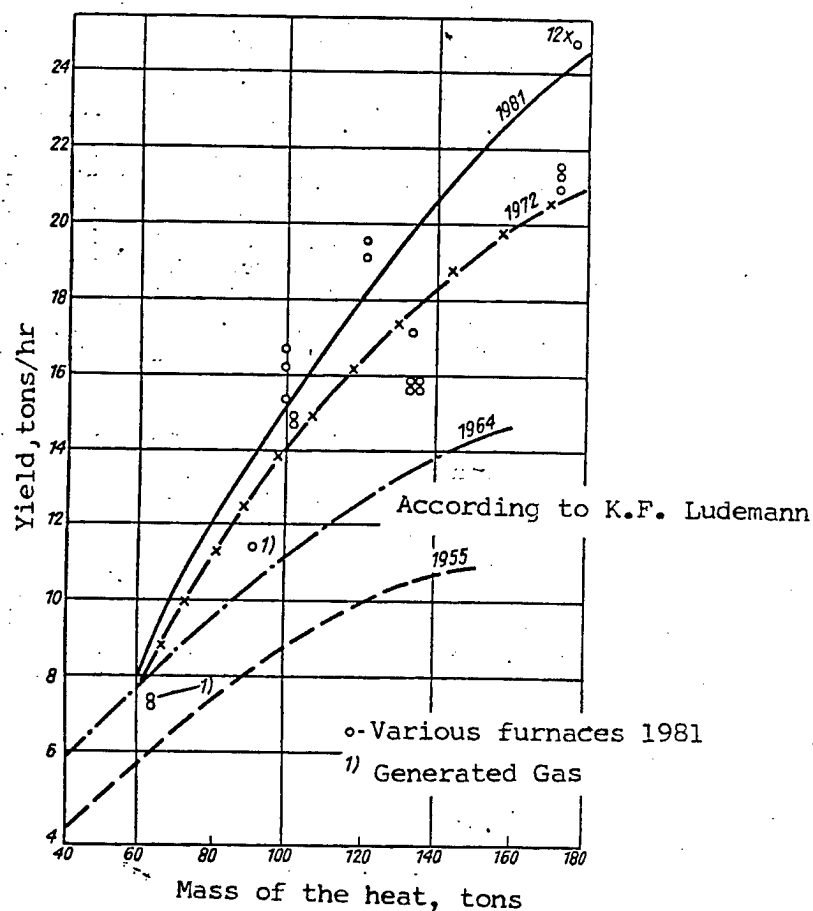


Figure 2. The development of open hearth furnace yield in the GDR from 1955 to 1981

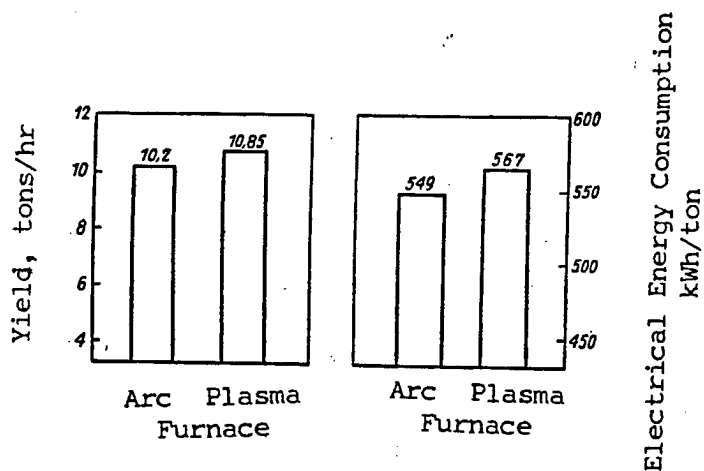


Figure 5. A comparison of yield in steelmaking and actual energy consumption of a 35-ton capacity electric arc furnace and a 35-ton capacity plasma furnace according to [7]

Table 1. Technical/economic data for selected open hearth furnaces in the GDR during 1981

| <u>Indicators</u> | <u>Plant 1</u> | <u>Plant 2</u> | <u>Plant 3</u> | <u>Plant 4</u> |
|---|--------------------|-------------------------|--------------------|-------------------------------------|
| Mass of the heat, tons | 177 | 133 | 120 | 60 |
| Hearth area, m ² | 76.3 | 56 | 50.4 | 30.4 |
| Hearth loading, t/m ² | 2.31 | 2.32 | 2.44 | 1.95 |
| Relation of scrap to raw iron, percent | 69:31 | 70:30 | 70:30 | 68:32 |
| Melt time, hrs | 5.60 | 6.06 | 4.79 | 5.14 |
| Time between heats, hrs | 7.10 | 8.03 | 6.44 | 7.95 |
| Yield, tons/hr | 25.0 | 16.43 | 19.33 | 7.35 |
| Heating method | natural gas/oil | natural gas/oil | natural gas/oil | generated gas/natural gas/oil |
| Ratio of fuel materials, percent | 70-30 | 71-29 | 34-66 | 67-26-7 |
| Number of burners/ports | 1, 2* | 1 | 1 | 1 |
| Actual heat consumption in GJ/ton | 5.46 | 6.58 | 5.77 | 6.46 |
| Roof construction | suspended roof | suspended strut roof | suspended roof | ribbed ceiling |
| Endurance of the furnace roof/number of heats | 633 | 470 | no data | 104 |

* additional natural gas burner

Table 2. Selected data on arc furnaces operating in GDR steelworks (1981 level)

| <u>Rated furnace size, tons</u> | <u>125</u> | <u>60</u> | <u>30-40</u> | <u>12-18</u> | <u>10</u> | <u>10</u> |
|----------------------------------|------------|-----------|--------------|--------------|-----------|-----------|
| Number of furnaces | 2 | 3 | 4 | 8 | 4 | 31 |
| Mass of the heat, tons | 125 | 64.5 | 37-52 | 20-28 | 15-17 | 6-8.6 |
| Actual working power, kW/t | 470 | 380-140 | 180-350 | 120-380 | 195-300 | 270-350 |
| Electrode diameter, mm | 610 | 508 | 457.508 | 305.355 | 305 | 254 |
| Energy consumption, kWh/t | | | | | | |
| -- while melting | 520 | 440-490 | 420-460 | 370-460 | 435-475 | 450-530 |
| -- total use | 560 | 515-525 | 570-630 | 500-640 | 600-660 | 700-760 |
| Time between heats, hrs | 4.0 | 2.7 | 3.4-5.0 | 2.6-4.6 | 3.9-4.7 | 3.2-4.7 |
| Furnace yield, t/hr | 31.0 | 23.5 | 9.7-11.2 | 5.0-7.6 | 3.3-4.0 | 1.8-2.4 |
| Electrode consumption, kg/t | 6.4 | 5.5 | 7.1-8.5 | 3.7-7.2 | 6.2-7.9 | 5.0-8.3 |
| Time utilization factor, percent | 78 | 85-88 | 87-97 | 87-96 | 93-97 | 95-97 |

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CSO: 2600/805

GERMAN DEMOCRATIC REPUBLIC

STATISTICS PUBLISHED ON SHIPBUILDING FOR 1983

East Berlin SEEWIRTSCHAFT in German Vol 16 No 2, Feb 84, pp 59-67

[Unattributed article: "GDR Shipbuilding 1983"]

Currently there are not very many shipyards that are building ships day in and day out, and even fewer that know years in advance what has to be built. A good situation with orders and high output objectives characterized the shipbuilding industry of the GDR. In 1983 production in GDR yards was increased in value by 7 percent. Sixty seven seagoing ships (1982: 58), in 15 versions with a net tonnage totalling 382,033 gross tons (1982: 355,443 gross register tonnage), were sold to shipowners from 5 countries last year through the foreign trade marketing section of the VEB Shipbuilding Combine, 53 of them to the Soviet Union, which placed the largest number of orders. Gabon, the newest customer nation, purchased two 12,620 tdw multipurpose "Neptun" series freighters.

The share of the individual yards in the new construction output for 1983 is shown in Table 1. Ninety seven percent of the total net tonnage in new construction was exported (Tables 2 through 4). With five ship types introduced into production, more than half of the building program was revamped last year. These are mainly new developments, whose utility value has been increased by at least 30 percent compared with similar ships and which will be in regular production in the next few years. They are the:

- multipurpose freighter lo-ro 18, capacity 18,020 tons
construction yard: VEB Warnowwerft, Warnemuende;
- freezer trawler-seiner GTS. Preparation and processing 45 tons/day
construction yard: VEB Volkswerft, Stralsund;
- refrigerator and transport ship "Kristall II," 13,300 m³ refrigerated hold capacity
construction yard: Mathias-Thesen-Werft, Wismar;
- container freight ship CBK 1700 for inland water and coastal voyages
construction yard: VEB Elbwerften, Boizenburg/Rosslau;

--inland-water passenger ship type 302 for 332 cabin passengers
construction yard: VEB Elbwerften, Boizenburg/Rosslau;

--survey ship "Impuls"
construction yard: VEB Elbwerften, Boizenburg/Rosslau.

Table 1. New Construction Output 1983* by Shipyard

| <u>Yard</u> | <u>Number of Ships</u> | <u>Size in Gross Tons</u> | <u>Deadweight Capacity in t</u> |
|-----------------------------------|----------------------------|-------------------------------|-------------------------------------|
| VEB Warnowwerft Warnemuende | 10 | 149,888 | 175,856 |
| VEB Volkswerft Stralsund | 30 | 69,966 | 28,110 |
| VEB Mathias-Thesen-Werft Wismar | 7 | 80,121 | 89,570 |
| VEB Schiffswerft "Neptun" Rostock | 7 | 49,166 | 64,534 |
| VEB Elbwerften Boizenburg/Rosslau | 12 | 32,652 | 14,890 |
| VEB Yachtwerft Berlin | 1 | 242 | --- |
| Total | 67 | 382,033 | 372,960 |

*Only seagoing ships or sea-inland waterway ships

Table 2. New Construction Output 1983 by Ship Type

| | <u>Number of Ships</u> | <u>Gross Tonnage in GT</u> | <u>Deadweight Capacity in t</u> |
|------------------------------------|----------------------------|--------------------------------|-------------------------------------|
| Freighters | 26 | 248,570 | 311,708 |
| --full container ships | 3 | 53,535 | 48,090 |
| --ro-ro and lo-ro ships | 3 | 25,277 | 31,540 |
| --multipurpose freighters | 10 | 117,875 | 163,358 |
| --special bulk cargo ships | 3 | 42,027 | 57,756 |
| --lake and inland-water freighters | 7 | 9,856 | 10,964 |
| Fishing Boats | 33 | 107,115 | 56,160 |
| --catch and processing ships | 30 | 69,966 | 28,110 |
| --refrigerator ships | 3 | 37,149 | 28,050 |
| Others | 8 | 26,348 | 5,092 |
| --inland waterway passenger ships | 4 | 21,388 | 2,220 |
| --bucket-chain dredgers | 2 | 3,312 | 1,156 |
| --firefighting ships | 1 | 240 | --- |
| --survey ships | 1 | 1,408 | 1,706 |
| Total | 67 | 382,033 | 372,960 |

Table 3. Product Group Share in New Construction Output 1983

| <u>Product Group</u> | <u>Number of Ships</u> | <u>Gross Tonnage in GT</u> | <u>Percentage (Based on Gross Tonnage)</u> |
|----------------------|------------------------|--------------------------------|--|
| Freighters | 26 | 248,570 | 65 |
| Fishing Boats | 33 | 107,115 | 28 |
| Other | 8 | 26,348 | 7 |
| Total | 67 | 382,033 | 100 |

Table 4. Export Share of New Construction Output 1983

| | <u>Number of Ships</u> | <u>Gross Tonnage in GT</u> | <u>Percentage (Based on Gross Tonnage)</u> |
|-------------------|------------------------|--------------------------------|--|
| Total Export | 63 | 371,001 | 97 |
| --USSR | 53 | 253,126 | 66 |
| --other countries | 10 | 117,875 | 30 |
| --GDR | 4 | 11,032 | 3 |
| Total | 67 | 382,033 | 100 |

VEB Warnowwerft Warnemuende

With 10 new ships built and a net tonnage totalling 149,888 gross tons, the Warnowwerft, which specializes in the construction of container ships and multipurpose freighters in the range between 10,000 and 20,000 tdw, again underlined the fact that it is among the leading yards in the world in this product group. One expression of the recognition given to this output is the honorary diploma, bestowed on 29 November 1983, for holding the title of "Operation with Outstanding Work Quality" for 5 years in succession.

In 1983 seven items were built for the Soviet account: the MS "Astrakan," the first of the lo-ro type to be built, three more 938 TEU full container ships in the "Mercur II" series and three more UL-ESC II type special bulk cargo freighters, of 19,250 tdw, the MS "Captain Vakula" being the 25th in the UL series. In a letter from the Ministry of Maritime Fleet of the USSR to the Warnowwerft, the last two ship types mentioned are evaluated as follows: "The "Mercur I" and "Mercur II" type container ships, with few exceptions, sail under the flag of the Baltic Shipping Company in Leningrad. They are used for container-carrying service between ports in Europe, South East Asia and Australia. Based on the experience gained in the operation of these ships, it can be stated that they have very good sailing qualities. The ability to transport both 20-foot and 40-foot containers, as well as the convenient location of the holds and hatches, makes them very competitive compared with other ships. They are easy to operate during loading and unloading operations.

The type UL-ESC I and II special bulk goods freighters are owned by the Murmansk Shipping Company. They operate under severe Arctic conditions, carry a great diversity of goods to the far north of the country and pick up the products of the combine in Norilsk for return transportation. The UL-ESC loose cargo freighters have a great advantage in that they can also carry containers (up to 442 TEU!). These ships can sail the route between Murmansk and Dudinka practically the entire year because of their performance in ice-bound waters. The UL-ESC II loose-cargo freighters were equipped with loading cranes so that they can call at ports which do not have their own loading equipment.

Based on operating experience with the "Mercur" and UL-ESC vessels, these ships can be evaluated as good with complete conviction."

In 1984, more ships will follow the Baltic Shipping Company's lo-ro ship "Astrakahn," when the "Rostov" (construction no 122) will also be the 300th deep-sea ship built by the yard. This ship type, which was put into production in record time, has 5 holds, which can carry 25,380 m³ of general cargo or 19,090 m³ of bulk cargo. Vehicles can drive through on the second deck into hold No 2, and it provides 2,730 m² of parking space for wheeled freight (for example, 232 Lada passenger cars). A total of 529 container spaces (287 in the holds) in a maximum of 5 layers and on 42 trailers, as well as 30 refrigerated containers with their own refrigeration plant, are available. Range of operation is 14,000 nautical miles, but this can be extended to 20,000 nautical miles. A special feature is the efficient cargo-handling equipment, which can adapt to cargoes of different weights and consists of a fully traversable 125-ton boom, 2 swing beams which can be moved while the crane is operating (25 tons), 2 twin ship's whip cranes, each with a capacity of 2 X 12.5 tons at a maximum extension of 22 meters. For loading and unloading rolling cargo, there is a three-section angled stern ramp on the starboard side, 25 meters in length and with a useable lane width of 5.8 meters (under license from Navire, Cargo Gear). Raising and lowering is carried out by cable. Folding, locking and maintaining a set distance to the quay is performed hydraulically. In its closed position the ramp provides a watertight seal at the stern. The 740-kW thruster rudder, based on an adjustable propeller (a new development of VEB Dieselmotorenwerk, Rostock), ensures a high maneuvering capability.

Export for shipping companies from non-socialist foreign countries was continued successfully with 3 multipurpose freighters in the "Monsun" series (17,330 tdw/642 TEU) and the production run was increased to 10.

VEB Shipyard "Neptun" Rostock

In 1983, the Rostock yard, so rich in tradition, built and exported a total of seven ships. With 5 additional multipurpose freighters of the "Neptun" series, which are about 12,700 tdw, the production run was increased to 48 and at the same time the previous production record for the freighters of the "Andizhan" series (46 ships between 1958 and 1962) was bettered.

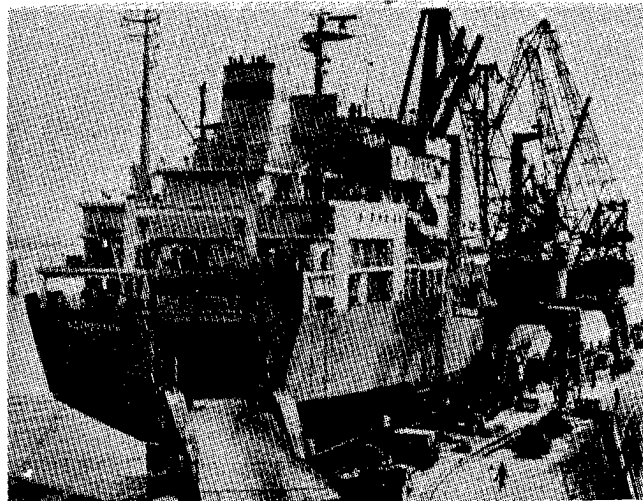


Figure 4. MS "Astrakhan"--type ship of a lo-ro multipurpose freighter series for combined cargo handling

On the occasion of the change of flags on 31 October last year on the MS "L'Abanga," the director general of the Societe Nationale des Transportes Maritimes (SONATRAM), Mr Onanga, thanked the yard and the outfitters for fulfilling the contract at short notice and their fine cooperation. The MS "La Mpassa" and MS "L'Abanga" have their home port in Libreville, trade between West Africa and Europe and are SONATRAM's first ships to fly the flag of Gabon.

Soviet companies took two more bucket conveyor dredgers of the "Skadovsk" series. Because of their high performance ($750 \text{ m}^3/\text{hour}$ at a dredging depth of 12 meters), they are mainly used to open new channels during canal and harbor construction. For example, the dredger "Belomorskaya" is operating during the construction of the deep-water wall off Leningrad in heavy soils with large inclusions of stones. A letter to the shipyard about operating experiences with the first dredger after 14 months of use near Odessa reads: ". . . the task of the dredger "Skadovsk" is to create a deep-water channel and an extensive harbor area for a modern fertilizer factory. The general impression and the condition of the dredger, after 14 months of use during which 2.85 million m^3 of soil from soil classes 3 through 6 were dredged in 4,600 hours, are good. The previous average amount dredged is $620 \text{ m}^3/\text{hour}$, but monthly averages exist of more than $900 \text{ m}^3/\text{hour}$ (the design performance is $750 \text{ m}^3/\text{hour}$). There have not been any seasonally attributable periods of inactivity. From the Soviet side it can be confirmed that this dredger meets expectations and compares with other top-quality products."

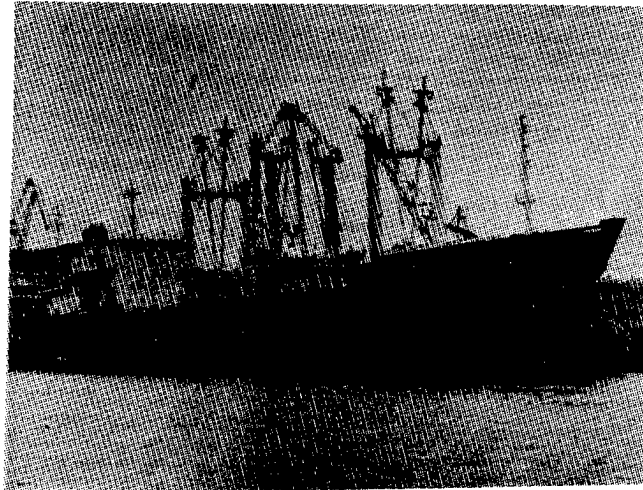


Figure 5. 17,300 tdw multipurpose "Monsun" series freighter for Liberia

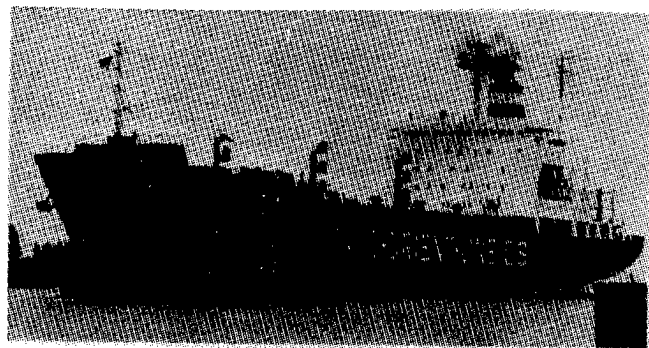


Figure 6. Last year the Warnowwerft built three more 938-TEU full container ships for the merchant fleet of the USSR--the MS "Nikolai Tikhonov" is the sixth unit of the "Mercur II" series.

VEB Volkswerft Stralsund

With 30 fishing boats, the yard on the Strelasund produced almost one half of all new ship construction for the shipbuilding combine. On 27 April, production of the 101.6-meter long catch and processing ships, type "Atlantik-Supertrawler" (treatment and processing ship 120 tons/day), built over a period of more than 10 years, ceased with the delivery of the "Kurtna" to the fishing base in Tallinna. Two hundred and one ships, 178 of them for the Soviet Union, 15 for the Romanian Socialist Republic and 8 for the GDR, are an impressive example of socialist economic integration.

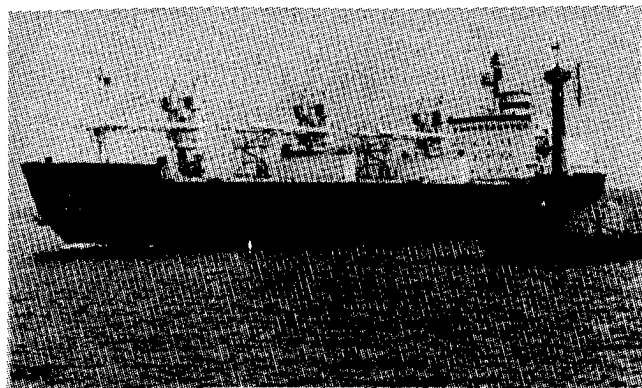
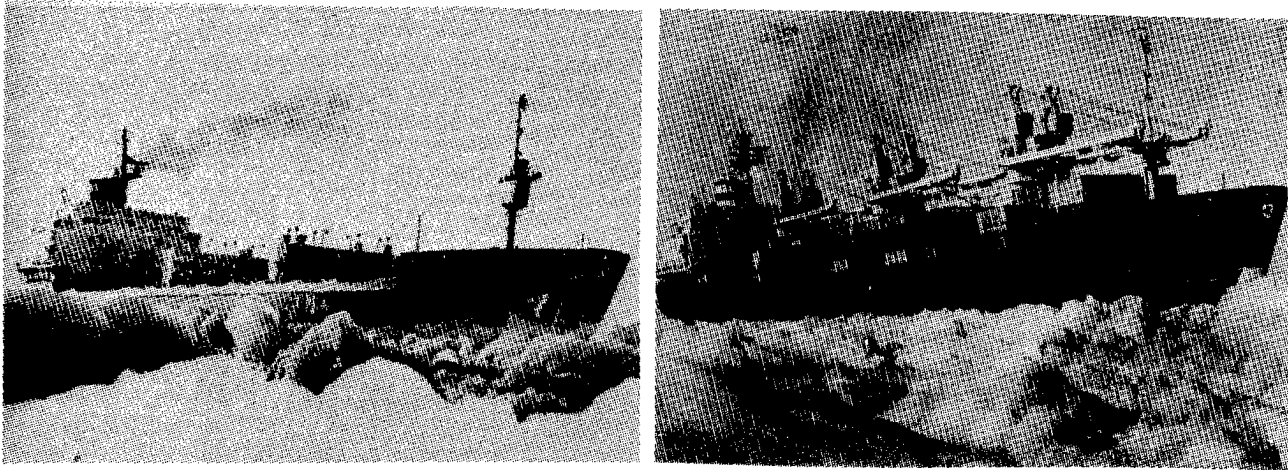


Figure 7. The Murmansk Shipping Company has taken delivery of 25 special bulk cargo freighters, series UL-ESC I/II, from the Warnowwerft since 1980.

One expression of the performance of the ships, which has been constantly improved in the course of building this series, is the annual catch. The originally projected catch of 10,000 tons per year has been substantially exceeded by many crews, by ROS 336 "Hans Marchwitza," for example, whose crew caught and processed 16,700 tons of fish in 263 fishing days in 1983.

With the start of series production of a new generation of fishing boats, the deep-freeze-trawler seiner (SEEWIRTSCHAFT Vol 3, 1982) and the realization of the 7-working-day output cycle, with an average total construction time of 100 days (38 days from laying the keel to launching, 45 days from launching to the delivery voyage and 17 days from delivery to raising the new flag), the Volkswerft has once again in its highly successful 35-year history triumphed over a difficult assignment. Twenty four deep-freeze-trawler seiners of the production version, which will be followed by another 34 this year, identify the Volkswerft as a fishing boat center of international rank.



Figures 8 and 9. Employing special bulk freighters on the western part of the northern sea route puts extreme demands on man and material.

The deep-freeze-trawler seiner (GTS) is a medium-sized ship, 62.5 meters length overall, partially automated for catching and processing. It was designed specially for use inside the economic zones, but can be employed universally and fishes mostly in a fleet or autonomously. One special feature is the combined dragnet and circular moored net fishing equipment, consisting of a 21-meter long catch deck, a 3.2-meter wide stern slip, 2 trawl warp winches, each for 2,200 meters of warp (rated power 90 kW) and a multidrum auxiliary winch with 9 drums and a single net drum. Treatment and processing capacity is 45 tons per day.



Figure 13. The 12,768-ton multipurpose freighter MS "Nordwoge" is the 48th ship of the proven "Mercur" series.

VEB Mathias-Thesen Yard Wismar

The Wismar yard collective delivered seven new ships, among them three refrigerator and transport ships of the new developed "Kristall II," which is based on the proven "Polar-Kristall" series, which has been in production since 1970. This ship is designed to accept chilled fish products at sea, to transport and deliver supplies and to provide cultural and medical care for the crews. It can transport a refrigerated cargo of 7,460 tons at room temperatures between -8°C and -30°C . Powered by a type DMR K5SZ 70/125 BL diesel engine (built under license from M.A.N), developing 7,600 kW, it can reach a speed of 17.4 knots. Its range of action is 12,300 nautical miles.

The type-ship of the new series, KTS "Komsomolets Primorya" was handed over on 30 April 1983 and its home port is Kaliningrad.

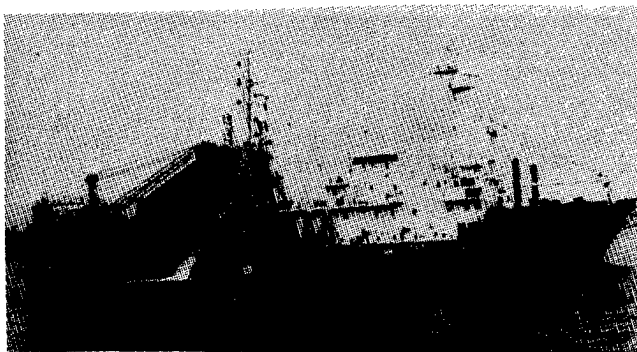


Figure 15. Bucket conveyor dredgers with a moving capacity of $750 \text{ m}^3/\text{hour}$ in 12 meters of water are part of the Neptun yard's building program.

With two more OBC's [Ore Bulk Carrier] for export to the non-socialist economic area, the production run of this model was raised to 26.

The MS "Auersberg" and the MS "Kahleberg" were built for the ro-ro service of the VEB Deutfracht shipping company in Rostock (for a description see SEE-WIRTSCHAFT Vol 2, 1983, pp 81-89), with a capacity of 6,760 tons.

VEB Elbwerften Boizenburg/Rosslau

Last year at the Elbwerft, 11 new ships were completed for the principal client, the USSR, and the survey ship "Impuls" was built for the GDR.



Figure 17. "Atlantik-Supertrawler" catching krill in the Antarctic.

The 22-unit series using design 301 (360 cabin passengers) for the Kama shipping line in Perm was completed with the inland water passenger ship "Feodor Dostoevskii." Of the new generation of inland water ships for 332 cabin passengers (type 302), introduced on pp 81-93, the "Dmitri Furmanov" is destined for the Kama Shipping Line in Perm, the "Akademik V. M. Glushkov" for the Kiev Inland Shipping Line (home port Cherson) and the "Novikov-Priboj" for the Volga Shipping Company in Gorki. This ship type was developed in close cooperation with the Ministry of Inland Shipping of the USSR. Comrades A. W. Petrov and I. A. Semyonov from the Ministry of Inland Shipping and comrade A. M. Ter-Akopov from the ZTKB [acronym not positively identified] played an important part.

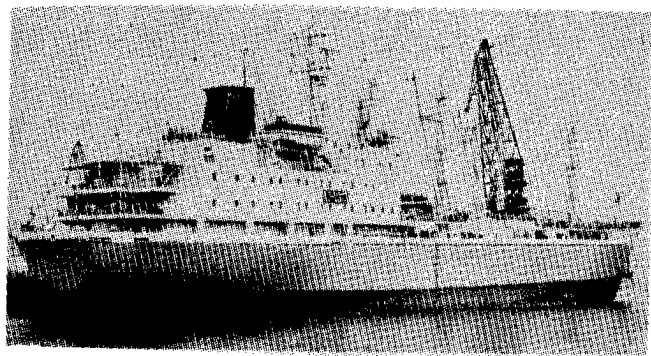


Figure 20. 13.300 m³ refrigerator and transport ship MS "Komsomolets Primorya" --the first ship of the new "Kristall II"-type series.

The ships are furnished as floating hotels and offer the highly sought after opportunity of becoming acquainted with the sights of the USSR from the water, while relaxing and enjoying good gastronomic and cultural fare. The ships are employed mainly for vacationing Soviet workers, some are used on the Volga and the Dneiper as part of contractual agreements between Intourist and foreign travel agencies. The trips arranged for the GDR's travel agency on the Volga or the Dneiper take place from May until October. The Volga cruises last about 13 days, start in Kasan or Rostov on the Don, with stopovers in Ulyanovsk, Zhiguli and Volgograd, as well as other towns. During the 10-day Dneiper cruises, the ships stop in Kiev, Kanev, Cherkassy, the Kamenski islands, Saporoshe, Novaya Kachovka, Cherson and Odessa.

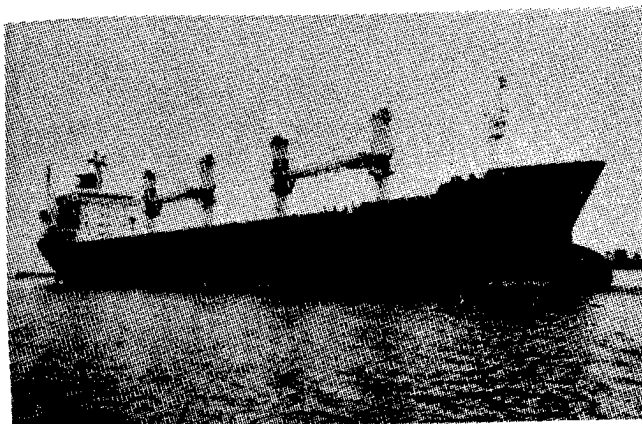
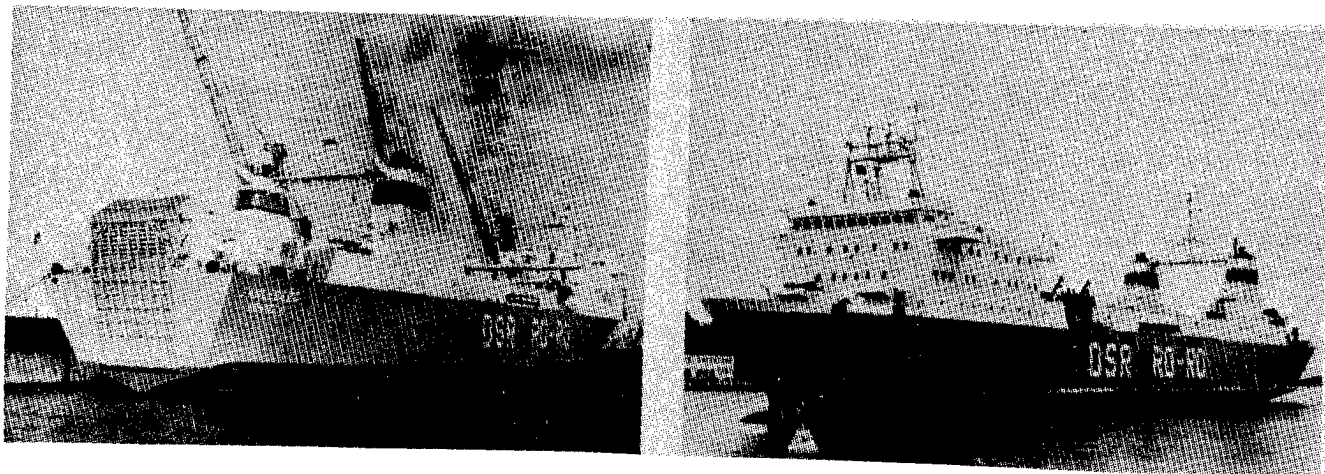


Figure 21. MS "Thalassini Axia," one ship in the series of the universally utilizable OBC/MBC types, which can carry up to 24,000 tons.

The series described in SEEWIRTSCHAFT Vol 7, 1982 was completed with the last three refrigerated container coastal and inland water motorships "Refrizherator" 607, 608 and 609. These refrigerator ships have a total of 1,450 m³ of hold space (which can be refrigerated in continuous increments between -18°C and +12°C), their maximum capacity is 1,380 tons and they are employed principally to carry supplies in the Siberian part of the USSR.

The container-coastal and inland water motorship CBK 1700 (76 TEU; 1,707 tdw) was put into production as the second new ship type from the Elbe yards in 1983, a successor to the CBK 1600 version with increased utility value. Four have already been delivered. A modified version of the basic type, the survey ship "Impuls," went to the VEB Geophysics in Leipzig.



Figures 22 and 23. The VEB Deutfracht in Rostock took possession of the MS "Kahleberg" and the MS "Auerberg" in 1983.

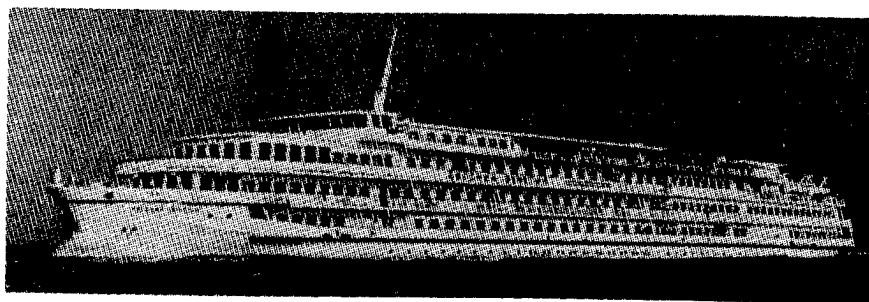


Figure 30. The inland water passenger ship "Yevgeniy Vutchetich."

VEB Yacht Yard Berlin

The last of the three universal fire boats which can be used in seaports and on the coast, FLB-40-3 (length overall 40,2 meters), was handed over on 28 September in Rostock.

The yard made a substantial contribution to the expansion of the tourism capacity of a neighboring country with six inland water passenger ships for the Czechoslovakian "White Fleet." The ships "Praha," "Pionyr," "Berounka" (all with their home port in Prague) and "Slapy" have 124 seats for day trippers; the "Ploucnice" and the "Kamenice" had their seating capacity increased from 124 (84 covered seats, 40 seats on the sundeck) to 164 (108 covered, 56 on the sundeck) by the addition of a 3.5-meter long section amidships.

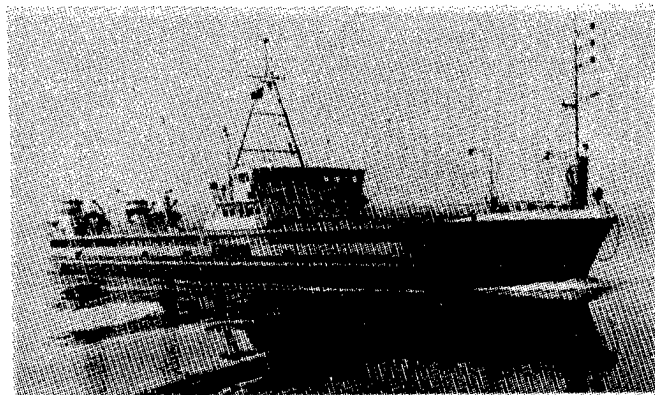


Figure 31. Four of the 82-meter long CBK 1700-type ships, which can stack up to 76 containers, were built last year by the VEB Elbwerften.

In order to increase the volume of transport traffic on inland waterways, the VEB Yacht Yard in Berlin began construction of a large run of canal pushboats (220 kW) in 1983 for the VEB Inland Water Shipping Company. These vessels, which are intended for use on canals, lakes and rivers with low current speeds, can push four barges, each of 470 m³ capacity, in double tandem arrangement. Good working conditions result from an extendable one-man steering station, highly automated operating equipment, optimal vision and a low-maintenance engine; a triple-surface rudder ensures good maneuverability. The canal pushboat is being built in the DSRK KMV-ECE 3 "ice" class, in accordance with the classification regulations of the GDR. Technical data: length overall = 16.5 meters; length between perpendiculars = 15.85 meters; width overall = 8.15 meters; breadth, moulded = 7.94 meters; height = 2.5 meters; draft = 1.5 meters; displacement = 114.6 m³; draft (max) = 1.57 meters; displacement at maximum draft = 124.5 m³; point of sight with steering station extended = 6.35 meters above the water line; power unit = diesel engine type 6 VD 36/24-10, 224 kW at 500 rev/min.

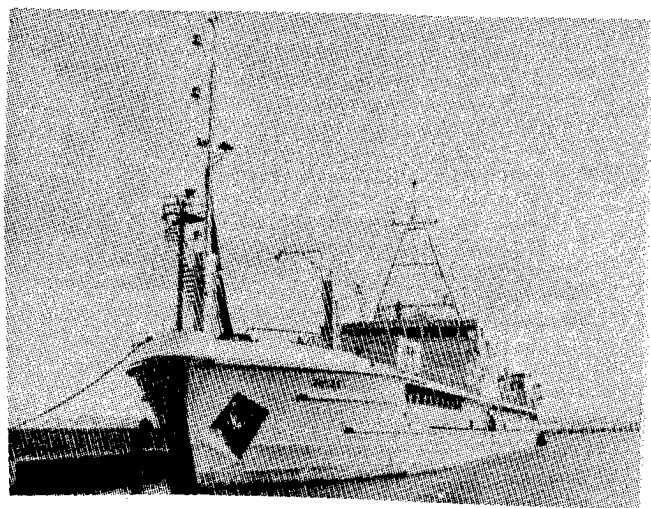


Figure 32. Survey ship "Impuls."

Table 1. Deliveries of Ships from GDR Ship Builders in 1983

| Date of delivery | Construction No | Ship name | Ship type | Flag Nation | Gross tonnage (deadweight tonnage) | Length between verticals in ms | Breadth in ms | Height in ms | Draft in ms | Engines | Power in kW | Speed in kts | Description in SHEWIRTSCHAFT |
|-----------------------------|-----------------|----------------------|-----------|-------------|------------------------------------|--------------------------------|----------------------|--------------|-------------|-----------------|-------------|--------------|------------------------------|
| VEB Warnowwerft Warnemuende | | | | | | | | | | | | | |
| 28 Feb 1983 | 474 | "Kapitan Y. Ushakov" | Mercur II | USSR | 17,845 (16,030) | 163.57 | 25.4 | 15.9 | 9.82 | 9 DKRN 80/160-4 | 15,882 | 21.3 | Jun 83 |
| 31 Mar 1983 | 150 | "Tim Buck" | UL-ESC II | USSR | 14,009 (19,252) | 154.88 | 22.86 | 13.5 | 9.88 | K 8 Z 70/120 E | 8,235 | 15.2 | Oct 83 |
| 29 Apr 1983 | 151 | "Kapitan Kudlai" | UL-ESC II | USSR | 14,009 (19,252) | see | "Tim Buck" | | | | | | |
| 30 Jun 1983 | 246 | "Athenian Spirit" | Monsun | Liberia | 12,811 (17,330) | 146.0 | 23.05 | 13.4 | 10.18 | K 7 Z 70/120 E | 6,690 | 17.0 | Sep 78 |
| 29 Jul 1983 | 152 | "Kapitan Vakula" | UL-ESC II | USSR | 14,009 (19,2525) | see | "Tim Buck" | | | | | | |
| 19 Aug 1983 | 475 | "Kapitan V. Trush" | Mercur II | USSR | 17,845 (16,030) | see | "Kapitan Y. Ushakov" | | | | | | |
| 30 Sep 1983 | 476 | "Nikolay Tikhonov" | Mercur KK | USSR | 17,845 (16,030) | see | "Kapitan Y. Ushakov" | | | | | | |
| 19 Oct 1983 | 247 | "Family Irini" | Monsun | Liberia | 12,811 (17,330) | see | "Athenian Spirit" | | | | | | |

| Date of delivery | Construction No | Ship Name | Ship type | Flag Nation | Gross tonnage (deadweight tonnage) | Length between verticals in ms | Breadth in ms | Height in ms | Draft in ms | Engines | Power in kw | Speed in kts | Description in SEEWIRTSCHAFT |
|---|-----------------|---------------------------------|-------------|-------------|------------------------------------|--------------------------------|---------------|--------------|-------------|------------------|-------------|--------------|------------------------------|
| 28 Dec 1983 | 255 | "Wadai" | Monsun | Panama | 12,811 (17,330) | see "Athenian Spirit" | | | | | | | |
| 31 Dec 1983 | 121 | "Astrakhan" | Lo-ro 18 | USSR | 15,893 (18,020) | 161.0 | 23.05 | 13.7 | 10.02 | K 5 SZ 70/125/B | 7,600 | 16.0 | |
| A total of 10 new ships, 149,888 gross tons (175,856 tdw) | | | | | | | | | | | | | |
| VEB Mathias-Thesen Yard Wismar | | | | | | | | | | | | | |
| 30 Apr 1983 | 222 | "Komsomolets Kristall Primorya" | II | USSR | 12,383 (9,350) | 142.0 | 22.2 | 13.6 | 8.02 | K 5 SZ 70/125/BL | 7,600 | 17.4 | |
| 30 Jun 1983 | 151 | "Auersberg" | Ro/ro | GDR | 4,692 (6,704) | see "Komsomolets Primoya" | | | | | | | |
| 30 Sep 1983 | 126 | "Thalassini Axia" | OBC | Liberia | 16,794 (24,400) | 176.6 | 22.85 | 14.0 | 10.46 | K 8 Z 70/120 E | 8,235 | 15.6 | Feb 81 |
| 31 Oct 1983 | 152 | "Kahleberg" | Ro/ro | GDR | 4,692 (6,704) | see "Auersberg" | | | | | | | |
| 22 Dec 1983 | 224 | "Tayezhnyi Bereg" | Kristall II | USSR | 12,383 (9,350) | see "Komsomolets Primoya" | | | | | | | |

| Date of delivery | Construction No | Ship name | Ship type | Flag nation | Gross tonnage (deadweight tonnage) | Length between verticals in ms | Breadth in ms | Height in ms | Draft in ms | Engines | Power in kw | Speed in kts | Description in SEEWIRTSCHAFT |
|--|-----------------|-------------------------|----------------|-------------|------------------------------------|--------------------------------|-------------------------|--------------|-------------|-----------------|-------------|--------------|------------------------------|
| 31 Dec 1983 | 127 | "Thalassini Hara" | OBC | Liberia | 16,794 | see | "Thalassini Axia" | | | | | | |
| A total of seven new ships, 80,121 gross tons (89,570 tdw) | | | | | | | | | | | | | |
| VEB Shipyard "Neptun" Rostock | | | | | | | | | | | | | |
| 28 Mar 1983 | 444 | "Notre Dame du Rosaire" | Neptun-421 | Phillipines | 10,383 (12,680) | 150.17 | 21.0 | 11.3 | 9.05 | MH K9Z 60/105 E | 6,620 | 16.6 | |
| 31 May 1983 | 445 | "Antje" | Neptun-421 | Singapore | 8,687 (12,680) | see | "Notre Dame du Rosaire" | | | | | | |
| 31 May 1983 | 104 | "Nakhoda" | Bucket dredger | USSR | 1,656 (583) | 80.17 | 14.4 | 5.2 | 3.75 | | 2 X 570 | 9.0 | |
| 30 Jun 1983 | 105 | "Inzhener Balasar" | Bucket dredger | USSR | 1,656 (583) | see | "Nakhoda" | | | | | | |
| 30 Aug 1983 | 446 | "La Mpassa" | Neptun-421 | Gabon | 9,281 (12,620) | see | "Notre Dame du Rosaire" | | | | | | |
| 31 Oct 1983 | 447 | "L'Abanga" | Neptun-421 | Gabon | 9,281 (12,620) | see | "Notre Dame du Rosaire" | | | | | | |

| Date of delivery | Construction No | Ship name | Ship type | Flag nation | Gross tonnage (deadweight tonnage) | Length between verticals in ms | Breadth in ms | Height in ma | Draft in ms | Engines | Power in kW | Speed in kts | Description in SEEWIRTSCHAFT |
|--|-----------------|---------------------|------------------------|-------------|------------------------------------|--------------------------------|---------------|--------------|-------------|--------------------|-------------|--------------|------------------------------|
| 30 Dec 1983 | 448 | "Nordwoge" | Neptun-421 | Singapore | 8,222 (12,768) | see "Notre Dame du Rosaire" | | | | | | | |
| A total of 7 new ships, 49,166 gross tons (64,534 tdw) | | | | | | | | | | | | | |
| VEB Volkswerft Stralsund | | | | | | | | | | | | | |
| 18 Jan 1983 | 564 | "Prolog" | Atlantic Super-trawler | USSR | 4,069 (1,997) | 91.8 | 15.2 | 9.7 | 5.7 | 8 ZD | 72/48 AL-1 | 2,855 | 14.6 Jun 78 |
| 31 Jan 1983 | 565 | "Bazaleti" | | | | | | | | | | | |
| 16 Feb 1983 | 566 | "Azimut" | | | | | | | | | | | |
| 29 Mar 1983 | 209 | "Krymskiy Rabochiy" | | | | | | | | | | | |
| 31 Mar 1983 | 210 | "Tsefey" | | | | | | | | | | | |
| 27 Apr 1983 | 211 | "Kurtna" | | | | | | | | | | | |
| 31 May 1983 | 605 | "Ondozero" | Freezer-trawler seiner | | 1,898 (672) | 55.0 | 13.8 | 9.2 | 4.8 | 2 X 8VD 26/20 AL-2 | 2X882 | 12.5 | Mar 82 |

| Date of delivery | Construction No | Ship name | Ship type | Flag nation | Gross tonnage (deadweight tonnage) | Length between verticals in ms | Breadth in ms | Height in ms | Draft in ms | Engines | Power in kw | Speed in kts | Description in SEEWIRTSCHAFT |
|------------------|-----------------|-------------|------------------------|-------------|------------------------------------|--------------------------------|---------------|--------------|-------------|--------------------|-------------|--------------|------------------------------|
| 31 May 1983 | 606 | "Obsha" | Freezer-trawler-seiner | USSR | 1,898 (672) | 55.0 | 13.8 | 9.2 | 4.8 | 2 X 8VD 26/20 AL-2 | 2 X 882 | 12.5 | Mar 82 |
| 30 Jun 1983 | 607 | "Obolyanka" | | | | | | | | | | | |
| 30 Jun 1983 | 608 | "Okhota" | | | | | | | | | | | |
| 30 Jun 1983 | 609 | "Osuga" | | | | | | | | | | | |
| 4 Aug 1983 | 610 | "Om" | | | | | | | | | | | |
| 24 Aug 1983 | 611 | "Olanga" | | | | | | | | | | | |
| 31 Aug 1983 | 612 | "Oma" | | | | | | | | | | | |
| 31 Aug 1983 | 613 | "Optukha" | | | | | | | | | | | |
| 20 Sep 1983 | 614 | "Orchik" | | | | | | | | | | | |
| 28 Sep 1983 | 615 | "Orlik" | | | | | | | | | | | |

| Date of delivery | Construction No | Ship name | Ship type | Flag nation | Gross tonnage (deadweight tonnage) | Length between verticals in ms | Breadth in ms | Height in ms | Draft in ms | Engines | Power in kw | Speed in kts | Description in SEEWIRTSCHAFT |
|------------------|-----------------|------------|------------------------|-------------|------------------------------------|--------------------------------|---------------|--------------|-------------|--------------------|-------------|--------------|------------------------------|
| 30 Sep 1983 | 616 | "Oster" | Freezer-trawler-seiner | USSR | 1,898 (672) | 55.0 | 13.8 | 9.2 | 4.8 | 2 X 8VD 26/20 A1-2 | 2 X 882 | 12.5 | Mar 82 |
| 20 Oct 1983 | 617 | "Ocher" | | | | | | | | | | | |
| 27 Oct 1983 | 618 | "Oksu" | | | | | | | | | | | |
| 31 Oct 1983 | 619 | "Olenty" | | | | | | | | | | | |
| 17 Nov 1983 | 620 | "Or" | | | | | | | | | | | |
| 23 Nov 1983 | 621 | "Omnya" | | | | | | | | | | | |
| 29 Nov 1983 | 622 | "Ozhogima" | | | | | | | | | | | |
| 30 Nov 1983 | 623 | "Olayne" | | | | | | | | | | | |
| 15 Dec 1983 | 624 | "Obya" | | | | | | | | | | | |
| 29 Dec 1983 | 625 | "Ochakov" | | | | | | | | | | | |

| Date of delivery | Construction No | Ship name | Ship type | Flag nation | Gross tonnage (deadweight tonnage) | Length between verticals in ms | Breadth in ms | Height in ms | Draft in ms | Engines | Power in kW | Speed in kts | Description in SEEWIRTSCHAFT |
|---|-----------------|---------------------|-----------------------------|-------------|------------------------------------|--------------------------------|---------------|--------------|---------------------|--------------------|-------------|--------------|------------------------------|
| 30 Dec 1983 | 626 | "Omulevka" | Freezer-trawler-seiner | USSR | 1,898 (672) | 55.0 | 13.8 | 9.2 | 4.8 | 2 X 8VD 26/20 AL-2 | 2 X 882 | 12.5 | Mar 82 |
| 31 Dec 1983 | 627 | "Opon" | | | | | | | | | | | |
| 31 Dec 1983 | 628 | "Oblukovina" | | | | | | | | | | | |
| A total of 30 new ships, 69,966 gross tons (28,110 tdw) | | | | | | | | | | | | | |
| VEB Elbe Yards Boizenburg/Rosslau | | | | | | | | | | | | | |
| 31 Jan 1983 | 366 | "Refrizherator 607" | KBK | USSR | 810 (1,380) | 78.1 | 11.6 | 4.0 | 2.5 | 2 X 8VDS 36/24A-1 | 2 X 444 | 20.7 | Jul 82 |
| 27 Jan 1983 | 320 | "Refrizherator 608" | KBK | USSR | 810 (1,380) | see | see | see | "Refrizherator 607" | | | | |
| 25 Feb 1983 | 321 | "Refrizherator 609" | KBK | USSR | 810 (1,380) | see | see | see | "Refrizherator 608" | | | | |
| 30 Mar 1983 | 377 | "Fedor Dostoevskii" | Inland water passenger ship | USSR | 4,990 (555) | 118.0 | 16.0 | 4.5 | 2.8 | 3 X EG 70-5 | 3 X 736 | 26.0 | Feb 76 |

| Date of delivery | Construction No | Ship Name | Ship Type | Flag nation | Gross tonnage (deadweight tonnage) | Length between verticals in ms | Breadth in ms | Height in ms | Draft in ms | Engines | Power in kW | Speed in kts | Description in SEEWIRTSCHAFT |
|------------------|-----------------|--------------------------|-----------------------------|-------------|------------------------------------|--------------------------------|---------------|--------------|-------------|--------------------|-------------|--------------|------------------------------|
| 20 Jun 1983 | 302 | "Impuls" | Survey ship | GDR | 1,408 (1,706) | 78.0 | 11.6 | 4.0 | 2.5 | 2 X 8VDS 36/24 A-1 | | | |
| 30 Jun 1983 | 378 | "Dmitri Furmanov" | Inland water passenger ship | USSR | 5,347 (555) | 122.4 | 16.0 | 4.5 | 2.9 | 3 X G70 | 3 X 736 | 25.0 km/hour | Feb 84 |
| 26 Jul 1983 | 303 | STK-1001 | CBK 1700 | USSU | 1,408 (1,706) | 78.1 | 11.6 | 4.0 | 3.44 | 2 X 8VDS 36/24 A-1 | | 20.7 km/hour | |
| 31 Aug 1983 | 304 | STK-1002 | CBK 1700 | USSR | 1,408 (1,706) | see "STK-1001" | | | | | | | |
| 30 Oct 1983 | 379 | "Akademik V.M. Glushkov" | Inland water passenger ship | USSR | 5,347 (555) | see "Dmitri Furmanov" | | | | | | | |
| 18 Dec 1983 | 305 | STK-1003 | CBK 1700 | USSR | 1,408 (1,706) | see "STK-1001" | | | | | | | |
| 30 Dec 1983 | 306 | STK-1004 | CBK 1700 | USSR | 1,408 (1,706) | see "STK-1001" | | | | | | | |
| 31 Dec 1983 | 380 | "Novikov Priboy" | Inland water passenger ship | USSR | 5,347 (555) | see "Dmitri Furmanov" | | | | | | | |

| Date of delivery | Construction No | Ship name | Ship type | Flag nation | Gross tonnage (deadweight tonnage) | Length between verticals in ms | Breadth in ms | Height in ms | Draft in ms | Engines | Power in kW | Speed in kts | Description in SEEWIRTSCHAFT |
|---|-----------------|-----------|---------------|-------------|--|-----------------------------------|---------------|--------------|-------------|----------------------|-------------|--------------|---------------------------------|
| A total of 12 new ships, 32,652 gross tons (14,890 tdw) | | | | | | | | | | | | | |
| VEB Yacht Yard Berlin | | | | | | | | | | | | | |
| 28 Sep 1983 | 1312 | FLB-40-3 | Fire- boat | GDR | | 35.84 | 7.2 | 3.52 | 2.2 | 3 X L2KVD 21 AL-4 | 3 X 900 | 16.0 | Dec 82 |

PERSISTENT CAPITAL SPENDING BINGE IN 1983 ASSAILED IN PZPR DAILY

Warsaw TRYBUNA LUDU in Polish 24 Feb 84 p 3

[Article by Mieczyslaw Wodzicki: "The Investment Knot"]

[Text] The investment boom continues. Habits acquired in the 1970's prove to be stronger than common sense. Despite stopping construction at many locations 2 years ago, despite shortages of manpower and other resources, new investments multiply like mushrooms after the rain.

In January 1983 "only" 37,000 construction efforts were underway, and three quarters later 53,000 were going on. The total value was over 5.1 trillion zloty. A significant part, about 70 percent, were investments started in the previous decade. The value of capital frozen in unfinished construction reached 1.2 trillion zloty.

Thousands of other construction efforts proceeded at a very slow pace and the chances of speedy completion were very slim. The situation was aggravated by the fact that the reform activated new mechanisms which gave a new weapon to the individual plants--the authority to start new construction when it can be independently financed with depreciation write-offs. This weapon, if improperly used, may threaten the stability of the economy.

Basically, it is praiseworthy to try to modernize the aging production base, but an excess of new projects will not be beneficial. It has been calculated that on the average 20 persons worked on each project and the annual output was 30 million zloty. The average completion time has been extended to 48 months and is more than twice as long as in other European countries.

Where To Look for 215 Billion?

Last year, we spent 995 billion zloty on investments, 215 billion more than planned. Let us stress that the plan was adjusted to the modest capabilities of the economy to be able to withstand potential threats. This was happening when the Sejm and the government continued to ask for moderation in spending.

Consequences appeared promptly. Excessive spending placed further pressure on the market and the rate of inflation increased. Many important projects have not been completed on time because the necessary resources were used piecemeal on other projects. Equipment frozen there was often built at the expense of other more urgently needed items. Producers of that equipment were paid billions of zlotys which were not covered by any consumable products. We are suffering the consequences of this every day as a gigantic inconvenience.

Additionally expanded money belonging to the society did not contribute to the speedy completion of projects. Only 71.2 percent were completed on time. This means that the resources included in the plan were directed to achieve less important aims. Among the investments which were not completed on time were electrothermal plants, energy packages, the plant producing polyvinyl chloride in Wloclawek and the plant producing ammonia in Police, market installations, bakeries, hospitals, etc.

Who Is Investing?

A review of expenditures in individual industries showed how the money was seeping away. In addition to continuing a large number of old construction projects which could not be finished in a year, 15,881 new construction projects whose value amounted to 435 billion zloty were started between January and September last year. The profusion of orders for construction work was so great that the contractors themselves declined thousands of orders.

Most of the projects, 12,267 valued at 246 billion zloty, were run by state enterprises. This group of investors and especially the industrial investors among them are pointed out as the perpetrators of chaos on the investment front. Is this correct?

It turns out that industry started only 3,742 new projects valued at less than 95 billion zloty. The majority of projects are renovation and modernization efforts, financed with the investors' own money reserves and using their own construction elements. A sizeable portion of those projects was in the area of fuel and energy, electrical machinery industry and food processing.

Many projects were small (except for the coal industry) and averaged 20 million zloty. As they were completed within a 1-2 year cycle, the payoff, i.e. production, is quick.

The investment giants, according to the Main Statistical Office, were the enterprises financed out of the state treasury, and they were the ones who caused the most problems. Among those investments were projects of local government units, agricultural enterprises, transportation and communication organizations. Large sums were spent on investments directed by national and provincial headquarters.

All this took place while many important projects started in previous years remained unfinished.

It is noticeable, especially at the local government level, that great efforts to start new investments are made little specific effort to see them to a speedy completion is exerted. This is so because it is generally believed that once an investment project has been started it must be carried to completion. The one who provided money for that project should be the one to see to it that it is completed.

These observations are confirmed by the Main Statistical Office. At the end of the first three quarters of 1983, the highest completion rate, 50.6 percent, was achieved by projects run by state enterprises using their own financial resources. The completion rate of projects financed by central allocation was only 35 percent.

Will "Difficult Money" Find Its Way to Construction Projects?

In 1983, several new irregularities on the investment front appeared. Especially bothersome was the wrong assortment of projects. Construction and assembly projects amounted to 63 percent of the total, while in 1980 they were only 57 percent. This means that we have invested mostly in brick and mortar without contributing to an increase of consumable products.

The "shock-work" method continued. In the first months of a project, work moved slowly, and then, at the end of the year, things moved really fast. Because of this method, over 54 percent of projects were completed in the fourth quarter, and in December the percentage was 40.

The situation was not changed by the fact that 71 percent of the projects were completed and became operational, while a year before the corresponding figure was 54.3 percent, in 1981 it was 48 percent and in 1980 42.7 percent.

These data show the depth of the crisis in construction in the last few years and the accumulation of work past its due time. These data also point out the direction in which action should be directed to remedy the apparently instinctive growth of new investments.

The most important task facing us is to bring order into the open-ended investment system and to create some mechanisms which, without violating the principle of enterprises independence, would permit the quick completion of old projects. I believe that for the transition period it would be most effective to introduce a controlled material supply system; other methods might turn out to be ineffective. The necessary resources should be allocated mainly for those projects which:

--have priority for the country or a region,

--permit an increase of production for the domestic market or for export,

--require restoration of production capacity,

--offer an opportunity to start production quickly.

We should devote more attention to the planning and execution of projects financed by central offices. This is the category of investments where we have the greatest number of examples of lack of discipline--late deliveries and cost overruns. Money belonging to society which does not have to be repaid to a bank is spent most recklessly and without consideration of what benefits it will bring.

Changes are required in the construction procedures themselves. Some projects require a greater concentration of effort. This would permit us to make up for some delays and speed up completion dates. This principle was applied successfully last year in the construction of an iron foundry in Lublin.

Without some measures to discipline the investors and to limit investments, an uncontrolled stream of money will again flow to new construction this year. Instead of the needed consumption goods, we will continue to produce means of production and... brick and mortar. The meaning of these facts must reach all who implement investment policies, those in central offices, in regional centers and in enterprises.

8801

CSO: 2600/768

POLAND

COMMODITY STRUCTURE, GEOGRAPHICAL DISTRIBUTION OF 1984 FOREIGN TRADE

Warsaw RYNKI ZAGRANICZNE in Polish 12 Jan 84 p 8

[Article by Ryszard A. Pospieszynski: "Polish Foreign Trade in 1984: Geographical-Commodity Trade Structure"]

[Text] It seems that in 1984 there will be no major changes in the commodity turnover in Polish foreign trade. Exports to the first payments area [socialist countries] will continue to include a high proportion of industrial electromachinery products (62 percent of total value), and exports to the second payments area [capitalist countries], as in the past, will be dominated by other goods, mostly all raw materials (65 percent of total value). Among imports from both first and second payments areas, other commodities will make up the greatest part (67 and 83 percent respectively); among these, raw materials and supplies will be most important.

In keeping with the stipulations of the CPR [central annual plan], export to the first payments area should reach a level of 558.5 billion zlotys in 1984 (an increase of 6.4 percent in constant zlotys), and export to the second payments area, 617.5 billion zlotys (an increase of 10.8 percent in constant zlotys). Achieving these levels will make it possible to increase imports to the following respective levels: 616.5 billion zlotys (an increase of 6.4 percent in constant zlotys), and 439.9 billion zlotys (an increase of 10.9 percent in constant zlotys).

Sources of Hard Currency Income

Among the basic commodities that comprise traditional sources of hard currency, we must include coal, sulfur, copper, and silver at the top of the list; in the aggregate, these constitute approximately 30 percent of the value of exports to the second payments area. Coal obviously has the most important position; its export, in keeping with stipulations of the CPR for 1984, should be 26 million tons as compared with 21 million tons exported in 1983.

It should be emphasized that attaining the stipulated growth rate in exports to the second payments area depends primarily on an increase in sales of coal and electromachinery products. This will be a difficult task, considering the overproduction of coal among suppliers of the international market (USA, South Africa, Australia), and large reserves held by the buyers. We also anticipate

a substantial increase in export of goods made of copper and copper alloys (approximately 50 percent), copper concentrates (approximately 40 percent), and cement and clinkers (more than 50 percent). As far as silver is concerned, however, the plan stipulates an insignificant increase in sales (only 5 percent). The drop in hard coal prices and price stagnation in sulfur must also be considered.

Export of electromachine products to the second payments area, according to stipulations of the CPR, should attain 174.5 billion zlotys (\$1.8 billion), and therefore be about 23 percent greater (in current prices) than in 1983. To attain such a high growth rate, there must be, first of all, a more than 30 percent increase in delivery of water transport facilities (valued at 30 billion zlotys), a more than 20 percent increase in production of electrotechnical and electronic goods (valued at approximately 13 billion zlotys), and an increase of about 20 percent in replacement parts (valued at approximately 13 billion zlotys). The smallest change, 109.4 percent, is envisioned in the sale of complete factory installations (valued at 17.5 billion zlotys); the greatest change, 131.5 percent, for precision equipment (valued at 3.5 billion zlotys).

The task envisioned in the CPR for export of electromachinery products to the second payments area is admittedly very ambitious, particularly in view of the difficulties that have arisen in this area during the past year, and in the context of persistent poor world market conditions and economic sanctions imposed against our country by certain capitalist governments. Achieving the desired sales increases proposed in the plan will require a definite improvement in product quality, which declined conspicuously recently. According to evaluations of the Supreme Chamber of Control, in 1982 losses due to poor quality of goods intended for export to capitalist countries were approximately \$570 million, that is, about 10 percent of their total value. Thus, there are great reserves in quality improvement which can be exploited without calling additional production into play. Finally, we must emphasize that an increase of the share of this group of products in export requires pro-export restructuring of production, but this is an operation that is both costly and time-consuming.

Agricultural and food items, which make up more than 10 percent of the value of deliveries in that direction, also hold an important position in exports to free foreign-exchange markets. The stipulations of the CPR include a substantial increase in export of this product group (approximately 30 percent), but this depends partly on climatic conditions. Here it must be noted that in the future, the value of agricultural and food imports bought for hard currency will be greater than the income from export (the negative balance will be approximately 40 billion zlotys).

The last group to be discussed is the export of construction and services since it comprises slightly more than 5 percent of the value of sales to the second payments area. Serious problems in this sphere of export activity do not warrant counting on an increase even with respect to 1983 when only slightly more than 70 percent of the value stipulated in the plan was realized. This was the result mainly of payment difficulties in Libya and Iraq

where most of our construction exports are concentrated. But it must be said that there are substantial reserves in this sphere of export activity; the activation of these depends on implementing suitable systemic-organizational solutions.

Carrying out the ambitious and difficult tasks outlined in the CPR for 1984 in exports to the second payments area will require great effort of both producers and tradesmen. It is worth noting here that attaining the projected growth rate in sales of electromachinery products (123.1 percent) will not change the export structure, but will only make it possible to maintain the present ratios. In the future, electromachine products will constitute approximately 28 percent of the value of deliveries. The quotas of other goods (including raw materials) will also remain the same, and will fluctuate, as in former times, around the 60 ± 2 percent level of the value of free foreign-exchange exports. Failure to carry out the plan for electromachinery exports, which is quite probable considering the great obstacles, would result in an increase in the proportion of raw materials export, which would be contrary to the stipulations of both the three-year plan and the plan for 1984.

The Raw Materials Barrier

Difficulties in obtaining credits, the need to service debt and the inadequate level of exports are the cause of the raw materials barrier that makes full exploitation of the industrial production potential impossible. Nor will the situation change in 1984. Under these conditions, imports from other socialist countries that make up for the shortage of raw materials and supplies from capitalist countries assume special significance. Among basic raw materials purchased from the first payments area, petroleum ranks first with imports of more than 12.75 million tons during the current year, followed by natural gas, 6 billion m³ and iron ore, approximately 3 million tons. Imports of metallurgical products (16.7 billion zlotys), potassium fertilizers (9.5 billion zlotys), and farm tires (10.5 billion zlotys) will hold a very valuable position..

In current prices, the greatest increases for other import goods will be in fuels, energy and metallurgical products (more than 14 percent), chemical products (27.5 percent), lumber and paper products (20.2 percent), and minerals (8.6 percent). At the same time there will be a decrease in imports of food industry products and agricultural products (approximately 30 percent) and light industry products (4 percent).

Attaining the stipulated increase of 14.6 percent, in current prices, in imports from the first payments area will be a difficult task in view of the nonfulfillment of the 1983 import plan. Its realization will require increased effort, particularly on the part of enterprises (cooperatives) in foreign trade.

Purchases in the second payments area will be made for cash, and therefore their volume will depend on the level of exports and amount of funds allocated for debt service. According to CPR stipulations for 1984, the import level from this area should increase by 15.1 percent (in current prices). The plan

is to spend 439.9 billion zlotys, that is \$4.6 billion, for free foreign exchange. This will make it possible to maintain the imports of petroleum (1.5 million tons) and many other raw materials and supplies needed by the national economy at present levels. Among others, there will be increases in purchases of iron ore (by 800,000 tons), synthetic rubber (by 5,000 tons), wool (by 5,200 tons), paper and cardboard (by 3,000 tons) and raw cow hides (by 197,000 tons).

There will be no structural changes in imports from this payments area. Thus, only 1/5 of the imports will be products of the electromachinery industry and the rest will be other goods, most importantly, supplies. It must be emphasized again that realizing these stipulations will depend on carrying out extraordinarily difficult export tasks.

Trends in Trade Development

The policy of tightening economic ties with member countries of the Council of Economic Mutual Assistance is being continued, and this will result in a decrease in dependence on capitalist countries for delivery of raw materials, supplies and technology. At present we are directing more than 54 percent of exports to socialist countries (in 1981, this share was 48.5 percent), and we are getting 64 percent of our imports there (in 1981, 55 percent).

Products of the electromachinery industry hold the basic position among exports to socialist countries. The plan for 1984 envisions export of this group of commodities to be 345.7 billion zlotys, which is more than an 11 percent increase. As a result, the share of products of the electromachinery industry in total exports to the first payments area will increase to 62 percent. The more important elements in this are marine floating stock, products of the motorization industry, construction machinery, agricultural machinery and equipment, measuring apparatus, trucks, internal combustion engines, and laboratory apparatus. Work will also continue in the area of reconstructing and broadening mutual cooperative connections, exploiting free generating power and joint completion of investment installations in Poland.

Raw materials and fuels form another important group of goods exported to socialist countries. Their share in total delivery to these markets is approximately 20 percent. We expect to export 16 million tons of coal (an increase of 6 million tons), 204,000 tons of copper in manufactured products (cables, alloys, copper electrolytes), 2 million tons of sulfur and certain chemical products such as calcined soda, sulfates and sulphuric acid and metallurgical products, deliveries of which are approximately 890,000 tons this year.

At the same time, there was a drop in export of industrial consumer goods, which comprise about 15 percent of deliveries to socialist countries. In these markets we sell mainly tape recorders, record players, and products of the textile industry. A drop in these exports is obviously the result of the difficult situation in our internal market.

The last group of manufactured goods is comprised of agricultural and food

products; these represent scarcely 2 percent of total sales to socialist countries. These exports are limited to vegetables, fruits, frozen foods and alcoholic beverages.

Actually the CPR for 1984 does not contain specific stipulations pertaining to intensification of exchange with developing countries beyond a statement that emphasizes the weight that must be given to this exchange, but it is a subject that is at the center of interest of both the Ministry of Foreign Trade and specific centers (cooperatives) of foreign trade. Thus far the participation of these countries in our turnover is inadequate to our potential, which we cannot always exploit. During the past year we directed slightly more than 12 percent of our exports to developing countries, and less than 8 percent of imported goods came from these countries in 1982. Keeping in mind the difficulties that we must overcome in attempting to increase exports to these markets (great competition, need to extend credit, etc.), we must exploit the opportunity that we have especially in countries that have chosen a noncapitalist road to development, or in countries in which our specialists are working on private contracts.

Intensification of cooperation with socialist countries and increase in trade exchanges with third-world countries will bring about a greater diversification in the directions of our foreign trade, and by the same token will decrease our dependence on imports from capitalist countries. Obviously, this does not mean a complete substitution, which would not only be impossible, but also undesirable. Nevertheless for many of these countries the development of trade exchanges with the industrial West is a determining condition with respect to trade with Poland and other countries of the socialist community. It is clear that trade will develop more rapidly with those countries that do not support or have resisted the policy of economic sanctions imposed by the United States.

2950

CSO: 2600/881

MINISTER COMMENTS ON 1984 PRICING POLICIES

PM171340 Katowice TRYBUNA ROBOTNICZA in Polish 2 Apr 84 p 4

[Interview with Minister Zdzislaw Krasinski, head of the Office of Price Affairs, by TRYBUNA ROBOTNICZA correspondent Wieslaw Wesolowski; date, place not given]

[Text] Wesolowski: Do the most recent price increases, those involving gasoline and radio and television licenses, close the total quota envisaged in the central plan, or should we expect still more increases this year?

Krasinski: The annual central plan envisages an increase in prices of between 15 and 16 percent. The public have been acquainted with these figures since last year's debates and consultations, and they have heard them mentioned on various occasions since then. I would suggest that you concentrate your attention on the following calculation: the effects of last year's price increases--increases which are already forgotten--will be carried over into this year--which is something we call the transfer of the [prices]--index--and will somewhat exceed 5 percent. An approximate calculation shows that this would leave some 10 percent to accommodate any new decisions on price increases. The increase in food prices introduced at the end of January caused the prices index to rise--unconvincing as this may sound--by an overall 3 percent for all goods; in March producer prices paid by industry for fuel and electrical energy went up; in April it was prices for the products of the metallurgical industry, aluminium, and zinc. The effect of increased producer prices on the commercial prices of goods sold directly to the population may cause the general index to go up by a further 3 percent, which means an effect identical to that which was caused by the increase in food prices.

I must emphasize here that this is only a probability, since we cannot anticipate these movements with any certainty. In the case of the official prices the increase was inevitable, whereas in the case of negotiated prices such inevitability does not exist. Our experience shows that enterprises which are highly profitable will often decide against increasing the price of their product in line with the effects of the increase in producer prices of raw materials and other supplies, thus abandoning their chance of increasing their profitability factor. An example of this kind of move can be seen in the case of razor blade prices, which remained the same despite the price movements of 1982 and 1983 and only went up recently after 14 years, because the producer had not considered it necessary to increase them before that. It is an example of a move advantageous for the consumers and at the same time unfortunate

because in the end the increase was quite considerable. Another thing which must be included in our calculation is the second stage of the adjustment of public housing rents, already announced a year ago and scheduled to take place in October this year.

All in all, this year's decisions will result in price increases of some 8 percent calculated in relation to the level recorded for the last day of December 1983, and if we add to this the effect of last year's price increases carried over to this year, the total figure will reach some 13 percent. According to the values determined in the central plan there will remain some 2 or 3 percent to be made up by further increases. No decisions about those have been taken to date.

Wesolowski: Let us consider all the points of the issue. In which market areas can we expect price rises to take place if these prove inevitable? Does the government intend to tolerate the money-seizing practices of speculators?

Krasinski: It is difficult to estimate today whether the anticipated growth of the population's incomes will reach the figures laid down in the plan. If this does not take place, there will be no further price rises. If, however, the latter prove inevitable, then the guideline to follow in selecting the areas in which to introduce them should be provided by the recommendation--issued in the 3-year plan--to balance the market. This means that prices should be increased for those goods whose production has reached, or even exceeded, the 1979 levels, and for which the number-of-goods-per-household indicators are high. There are whole groups of such goods, and yet the continuing demand for them is much higher than the production capacity. In cases like this prices ought to be raised to the level at which an equilibrium is reached, and this should apply especially to nonessential consumer goods.

Wesolowski: For example?

Krasinski: Automatic washing machines, or sewing machines. Supply of these articles to the market is now higher than in 1979, and yet we all know the scenes that take place outside the stores. The producers have reached the limits of their production capacities. It is impossible to increase supply without building new factories or importing these goods, and that would be extremely difficult in our current economic situation. At the same time, surveys conducted last September have shown that the number-of-goods-per-household indicator is very high for this particular category of goods: for every 100 households there are 111 automatic or rotary washing machines, 150 radio sets, 99 refrigerators and freezers, 110 television sets, 55 sewing machines, and 92 bicycles. Another indicative factor, apart from the size of production and the number of consumer durables already owned by the population, which must be taken into consideration when establishing the list of products whose prices need to be increased--assuming that an increase in the population's incomes necessitates this operation--is the incidence of speculation offenses, where large fortunes are made with an infinitesimal expenditure of work.

We recently placed some advertisements in the "Wanted" columns of papers appearing in several large cities, and they ran as follows: "Wanted: automatic washing machine, freezer; phone..." On the Saturday morning telephones rang

incessantly in all our regional offices as well as in our headquarters. We took the last offer at 0100 hours in the Swietokrzyska Street office, and the number of offers we managed to record came to 500. The asking prices guaranteed that the sellers would be making a profit of between Z20,000 and Z30,000 on each item. The lowest prices, incidentally, were asked in Silesia, owing to the extent of market saturation and the state of market supply. There was a great diversity of the proposed forms of sale, ranging from the sellers offering to trade in their invalid coupons [entitling holder to purchase the relevant article], their store receipts, or their MM credit coupons [entitling young married couples to purchase a range of household goods], to assignments with contacts in the marketplace or in a car outside the store, and many more highly sophisticated methods. Our inspectors also took up places in lines outside stores selling goods in high demand, that is, those which, when resold, would bring in profits of not less than Z20,000 per item. It took less than 20 hours for each of the inspectors to lose his place in the line.

[Krasinski continues] It was enough to arrive a few minutes late to the customary hourly checking of the queuers' list to have one's name struck off it in accordance to the "law of the queue" as the full-time queuers would all close their ranks and declare, with complete solidarity, "He did not line up here." I estimate that each year speculators seize some Z40 billion of untaxed profit and practically cut off access to stores with high-demand goods to ordinary working people. A kind of speculating mentality has been created, best illustrated by the fact that in one of our opinion polls people who already owned goods of this type declared their readiness to immediately buy more of the same kind, such as another freezer, a second television set, and so on.

I repeat: The selection has not yet been made, but these are the areas where price rises should be considered, basing the decisions on the indicative factors I have mentioned.

Wesolowski: What prospects are there for establishing an incomes-prices ratio? What happens if the planned prices index is exceeded with a simultaneous failure to achieve the planned increase of the population's real incomes--set at 1 or 2 percent--for 1984?

Krasinski: Then Krasinski will be called before the State Tribunal. And this is why it is better not to use up all the possibilities [of increasing prices] offered by the price movement index, in case we take things too far--considering that we always run the risk of making an erroneous assessment. However, neither the January nor February figures seem to indicate that the upward movement of incomes is less than planned (in fact, it has been slightly more), and as regards longer-term planning, there is no certainty, but neither is there any fear that we will see some considerable deviation from what we expect. The new PFAZ [State Employment Incentive Fund] mechanism, about which there have been so many complaints, guarantees that there will be no runaway pay rises. However, the question presents itself here, rather predictably, of whether enterprises will

not decide to push their prices beyond any reasonable limits. Well, we have erected numerous protective barriers against this. There is a freeze on the prices of raw materials, intermediate materials, and products manufactured in the cooperation system--applicable to negotiated prices, since there would be no point in imposing such a freeze on official prices. Thus it is not possible for enterprises to raise their prices higher than is compatible with the effects of price rises affecting enterprises from the outside, for instance those of electricity. As last year's experience shows, the upward movement of prices was higher in the case of official prices (comprising four-fifths of the total value of price increases) than in that of negotiated prices. Contrary to popular belief, enterprises are afraid of control checks, inspection checks, and so on, and work forces are not interested in pushing up the prices either, since they are by now well aware of the fact that they will have to return to the finance minister a major portion of all profits gained in such a way.

Wesolowski: But our paper has been receiving many letters and telephone calls in which readers report cases of enterprises pushing the prices too high. We have collected several dozen examples here....

Krasinski: After acquainting myself with the list compiled by TRYBUNA ROBOTNICZA's reports from Readers Department I would say that in each particular case an appropriate investigation and explanatory procedure is required. But before I continue on this subject I would like to say that, although most enterprises do not display evidence of a money-grubbing attitude to the extent in which popular opinion charges them with this ugly trait, this does not mean that the phenomenon does not exist.

[Krasinski continues] Recently a group of 20-odd enterprises attempted to raise their prices for such articles as electric irons, incandescent lamps, radio sets, or tape recorders, and tried to justify this move by the anticipated increase of producer prices--even though it was all taking place in January, that is, before the increases were introduced--and also by the fact that they were making preparations for a new pay system in which the enterprises would have to bear the burden of all the compensatory pay allowances, the national insurance contributions and so on, although the introduction of a new system of that kind was at that time still not approved by either their work forces or the department of labor and wages. In some cases the prices have already been adjusted and the elements of the underlying calculation have been included in the unjustified costs. As regards the remaining cases, representatives of the trade sector are currently conducting hard negotiations with the enterprises involved. Those of the latter which refuse to adjust their cost calculation to produce correct figures are holding their goods in storage. This causes customers to suffer, but the producers in their turn are obliged to pay high interest on their turnover credit on account of all goods which remain unsold, and it is to be expected that they will learn their lesson quickly in this economic game.

Let us go back to the examples reported by your readers. It is on the basis of such signals, and also on those passed on to us by the State Trade Inspectorate, the Supreme Chamber of Control, and the Treasury Chambers, that the Inspectorate of Prices carries out--in addition to its regular control procedure--

intervention checks designed to ascertain whether prices are calculated correctly. Each year 5,000 such control checks are carried out and each case in which an irregularity is discovered proves very expensive for the producer (the penalty fine equals twice the profit) besides causing a reduction of the work force's fund. And another thing that requires explanation: Producers do not spread the effect of the increase of producer prices equally over all their products, but move the major part of the load on to nonessential consumer goods--which is the correct procedure. In addition, there are cases of silly "economies" made on product labels and price tags, where the old prices, long out of date, are crossed out--which makes it look as if a massive price increase has only just taken place. Articles made in the Chodziez china factory, for example, bear labels on which you can see prices--crossed out, of course dating back to 1960, alongside which the new ones look as if they have been increased at one stroke. This is all I have to say by way of giving general comments on your specific cases.

In my opinion the prices freeze and the fear of control checks constitute quite formidable barriers which can successfully prevent a number of producers from exhibiting rapacity.

Wesolowski: Thank you for the interview.

CSO: 2600/903

'PHILOSOPHICAL' PREMISES OF REFORM QUESTIONED IN PZPR THEORETICAL ORGAN

Warsaw NOWE DROGI in Polish No 2, Feb 84 pp 104-110

[Article by Prof Igor Timofiejuk, Warsaw University, Institute for Economic Cybernetics: "Some Remarks on the Economic Reform"]

[Text] Deliberations concerning the benefits of and the need for economic reform in Poland today are already mostly of historical importance. Born and implemented during a severe political struggle, it is now a fact and strongly determines the basic features of the country's socioeconomic situation. On the other hand, it is necessary, fundamental, and logical to discuss now the shape of the economic reform and the results it is producing. Regardless of whether more or less is said on the subject, it is nonetheless a fixed element of concern in the country's economic and political leadership and will become increasingly the subject of social consciousness.

The results of the economic reform at one and the same time meet or fail to meet the most essential expectations related to it and are the basic criteria for a socioeconomic assessment of its effectiveness. There is no point in taking up views on the subject derived from opposing, antisocialist forces. There the picture is rather monochrome. My remarks concern the views concerning the economic reform of those who promote, create, direct, and supervise the process of its implementation. The main focus is on the need for more time for full revelation of the mechanisms of the reform and its somewhat autonomic "pure" effects in the realm of production structure and its social effectiveness. And this is entirely reasonable and understandable. On the other hand, within the framework of the ongoing economic effects of the reform, there are assessments being made which give rise to profound reservations.

It is said that the effects of the reform are proved by the current results of the national economy in the realm of production development as presented in GUS statistics on the situation of the country's economy (in monthly reports and data on longer time periods). This statement has not been proved, but its cognitive value is the same as that of the following statement: if the mechanisms of the economic reform had not been introduced, the production effects of the national economy would be greater and we would have come through the crisis faster. This is because **the assessment made**

concerning the effectiveness of the reform with regard to economic growth is based on the coincident occurrence of those phenomena, that is, the economic reform and the activation of the economy. But this correlation is no proof of a cause and effect relationship. In this sense, the assessment is an intellectual abuse, from the scientific point of view.

At the same time it is said that the economic reform is not the reason for the inflationary phenomena in the Polish economy or the decline in the standard of living. The socioeconomic crisis is blamed for it. The hypothesis concerning the effects of the crisis is undoubtedly correct, but if the economic reform and the processes of inflation appear simultaneously, then we can have the same conviction in stating their relationship as is stated about the effectiveness of the reform in the realm of economic effects based on its occurrence with the activation in the national economy. From the viewpoint of prices, in this sense the hypothesis of the effectiveness of the economic reform contains a contradiction.

If we look more deeply into the logic of the reform, it does not seem that we should not seek to find the chief argument for their effectiveness in the processes of economic growth. Other methods of running and managing the national economy could insure this, such as those in the realm of central-directive methods. After all, the history of the economy of People's Poland shows that such methods in the past were effective in discharging their functions in situations where there was fear of economy disintegration. We should rather be looking for criteria for assessing the effectiveness of economic reform mechanisms in the sphere of the relationships between wages and labor productivity, materials consumption levels, energy consumption, and capital consumption rates in production, the elimination of waste and poor workmanship, and improvements in economic activity and the socioeconomic effectiveness of such activity, that is, generally speaking, in the realm of the creation and promotion of phenomena of socialist ingenuity.

Passing on to the question of the shape of the economic reform, I shall refer to elements in terms of the instruments, such as rates, prices, taxes, and so on. These are extremely important economic parameters as elements of the overall mechanism of the functioning of economic units under the conditions of the reformed economy. But from the viewpoint of the analysis we are dealing with here, they are technical-economic in nature, because we are concerned with the basic constructive component of the reform, its fundamentals, and hence somehow its "philosophy." I am putting forth the hypothesis that in its basic form, the Polish economic reform contains an inflationary element. This factor consists of the fact that the reform is based on a single measure for assessing the effects of the enterprises' work, that is, the measure of the extent of profits. This fact, if we may use language from another area of social consciousness, is "original sin" in the realm of inflationary processes and phenomena created by the very construction of the economic reform. Of course, I am not saying that the economic reform is responsible for the inflation presently being observed in Poland's national economy, but I am saying that it does play a certain role. The problem which will be the focus of attention in this article is this: the construction of the economic reform based on a single measure for assessing the effects of

the enterprises' work will produce inflationary processes even when other inflatiogenic factors, such as those stemming from the crisis situation, are not present.

Let us take a look at the experience of the functioning of the national economy in socialist countries over a dozen and some years. The general practice here has been the centralistic administration-by-directive model of managing and running the national economy, based on the principles which were established during the first five-year plan (1928-1932) in the Soviet economy. In this model of the functioning of the national economy, it was also a principle that a single, basic standard would be used to set plan goals and assess the way they were met by the enterprises. In this sense, the principles of our economic reform are the same.

Gross product (gross production) was used as this single standard of measure the longest. The effects in using gross production were noted rather early on, and two ways of proceeding were adopted.

One of the ways was enrichment, supporting the gross-production standard of measurement with others, to ease its adverse effects and features. As a footnote we might mention that a result of this was the exceptional expansion of the analytical system of material and nonmaterial incentives. But in the process of enterprise functioning, the mechanism became its own sort of "scale of values" of assessment standards, and this mechanism became the one basic decisive one.

Another way of proceeding was to seek a standard of measurement which was better than gross product. Better means less subject to distortions and to reaching its level and dynamics through "illegal" factors. From a certain viewpoint this is a promising way, because there are "better" and "worse" standards of measurement, and net production, for example, is a better standard than gross production. But net production, for example, inclines the enterprise to reduce cooperation (the gross production standard of measurement expanded it too much), which does not always correspond to the principles of overall economic effectiveness. Thus this method of proceeding also fails to insure against adverse consequences of a system based on a single standard of measurement.

The profit rate or another ratio concerning the category of profit or the size of profit is undoubtedly very precise, but it is subject to distortion. For example, in 1982 Polish enterprises achieved rather significant results in obtaining profits, but this cannot be considered positive either in relation to the increase in their production or to factors creating this rate of profit. Individual and collective needs are met by utilitarian values, not profits. A single-measure system based on the rate of profit functioned ideally -- this does not exist in reality, but only on the pages of economic policy textbooks -- in a model of perfect competition, or it functioned correctly under conditions determined by production relations in a theoretically realistic Marxist model of free competition. As a footnote we should mention the role of the single standard of measurement in the functioning of the capitalist economy and also the severe new problem now with stagflation.

The problem requires separate treatment. In a capitalist economy the essence of its production relations defined by private ownership of the means of production, regardless of the efforts of the enterprises, under economic pressure, long-range or current profit becomes the most important standard of assessment. Capitalism cannot overcome this, owing to its very nature. As will be shown below, the socialist economy has potential and actual possibilities for overcoming the flaws of the single-measure model.

Going back to the main current of the discussion, now we should answer the basic question: Why using the single standard is potentially and actually inflatiogenic. The matter is actually rather simple. First, the standard of measurement of the enterprise's effectiveness always has some specific income-related sort of gratification connected to it, such as bonuses, awards, profit sharing, and so on, for the enterprises' management and workers. This is another way of creating income and demand outside the "normal" wage system.

Second, the incentive nature of the standard of measurement inclines the enterprise to undertake specific strategies for developing a "decent" and "safe" level and growth rate for this standard. Thus, various practices are engaged in to hide reserves, so that they will last longer to show that the standard has been executed well. Thus, the desire to realize a degenerate form of the principle of rational management: minimum effects and maximum means. Thus, paradoxes that enterprises that work well and do not hide their reserves but have high productivity and effectiveness and therefore cannot increase them dynamically (exhausted threshold of possibilities) are penalized in distributing profits, while those that hide their reserves but increase the extent by which they fulfill the standard are rewarded more. Such income redistribution is inadequate for their share in terms of supply.

Third, the high benefits related to the single, basic standard create great temptation to find easy ways to fulfill the standard. Examples here are the tendency to capital- and materials-consumptiveness of production through the gross-production standard; to select item assortments convenient for the enterprise rather than for the consumer, called "manipulation of the item assortment," through the net-production standard. I am using here the most recent Polish experience of "dishonest" profit gained through increased prices, lower quality, and so on. Thus, the race to push up the achievement of the standard occurs at the cost of other sides of the production process and economic activity (other measurements), in those details which determine the quantity, structure, and quality of supply. Various attempts to prevent these phenomena are usually ineffective, because the logic of reality always triumphs over the logic of theory. Of course! In resolving our reform, if we replaced the rate of profit as the standard of measure with the level of production costs, then surely the enterprises would reduce them, for example, by reducing production quality. If we were to take quality as the standard of measure, for example, then surely the enterprises would upgrade production quality by reducing the dimensions of output or by making a certain selection of the assortment of items produced, and so on.

Before presenting an attempt to resolve the problem, we should address one more issue. It contains this question: If a single-standard system of operation is inflatiogenic, must actual inflationary factors always occur? The tendency in this direction is basically fixed, but the scale differs, and considerably so, along with the strength and forms in which inflation occurs. In order to avoid misunderstandings, we must note that the inflatiogenic nature of the single-standard model is not the single reason for market instability appearing in the form of the inflation gap. Operating here are various factors and, historically speaking, variable factors. Among them have been forced industrialization, the fact that the growth rate of sector-I social production was more rapid than that of sector II, the breakdown in the investment and production process, and so on. But the inflatiogenic nature of the single-standard model is potentially a fixed and constant one, and in fact it occurs easily. At one time there was even the theoretical justification of market imbalance in the form of I. V. Stalin's law that in a socialist economy demand must rise more rapidly than supply. In the directive-administration system of management and leadership this tendency was limited and subdued by directives which severely controlled increases in income (wages) and prices, but it manifested itself always to a lesser or greater degree in market imbalance, lines, and shortages of goods. The softening of the role of the directive system and the use of parametric methods of planned direction are causing this phenomenon to appear in the open inflation of wages and prices. Examples here are the economies of Yugoslavia, Hungary, and Poland. In our economy this tendency is linked to other factors, crisis factors, causing an inflationary spiral.

I see the solution of the problem, the elimination of the inflatiogenic nature of the single-standard model of planned management of the national economy to be in the concept of random choice of the standard for assessing the effects of the work of the enterprise (operating unit)*. This concept is somehow able to combine the positive features of the multistandard assessment of the enterprise's work with the positive features of and need for a single-standard method.

The point of departure for the idea of this concept is the assumption that each enterprise (more precisely, its targets, means, effects) can be described as a definite set of interrelated measurements. This set should include synthetic and analytical, qualitative and quantitative measures, to portray the enterprise's activity in a comprehensive multilateral way. These measures can also include -- this is often essential from the viewpoint of more general preferences -- directive targets in the realm of production of specific goods expressed in natural units. The set of measures should of course be different for enterprises of different branches and even for various enterprises of the same branch, if their specific characteristics justify such a distinction, but for a given enterprise, under given conditions of time and place, it should be specified exactly. These measures should specify precisely the targets and the means and methods the enterprises have for meeting them in a given time planning period (for example, annual).

*I formulated this concept in the article: "On the Question of Assessing the Effects of the Work of the Enterprise," NOWE DROGI, No 10, 1977, pp 117-132.

This set of measurements, which are specified in certain relationships and correlations, can be used to describe the activity of the enterprise in a comprehensive way.

The incentive system would be dual in nature. On the one hand, wages, but other rewards (bonuses, "thirteenth-month" paychecks, awards, and so on) would be subject to a specific manner of handling. For example, 50 percent or 25 percent of the material incentive fund could be distributed among the workers in the normal course of the enterprise's ongoing activity. It would be best to link them to standards of measurement which are free of or not very subject to deformation, that is, mainly expressed in natural units. The rest of the bonuses, including all for enterprise management, would be distributed at the end of the year's activity of the enterprise (after the annual books had been closed) on the basis of a selected standard from the set of standards used to describe the annual plan targets. The selection of this standard should be made at random, so that all standards would have equal probability of becoming the standard by which the work of the enterprise would be assessed, and the additional elements of material gratification would be distributed among the workers and management accordingly. Hence, in the enterprise there would be no conditions for the temptation, interest, or possibility of gratifying certain standards at the cost of the others. Profit, price, quality, costs, cooperation obligations, and so on would be equally important, and the thing is that this system of enterprise assessment too, using the analogy of terminology from another sphere of activity, would be the enterprise's real hour of truth. It would be the sort of examination which in essence then would check the whole sphere of issues using random methods, because the previous system of assessing the enterprises was not a real test of their social function or usefulness, inasmuch as the exam preparation was based on knowing the questions ahead of time.

Of course, there are a number of problems in the area of the very "technology" of the system associated with the concept I am proposing too. This applies to the concrete set of measures, the random-element organ, the technique for making the random choice, and so on, but these would seem to be issues of a purely technical nature, and therefore they are not addressed here.

I want to point out certain positive aspects of the solution being proposed. First, it creates a proper system of economic coercion to show concern for the whole structure of the work of the enterprise. Second, there is no need for "external" control. The most effective control is the unknown standard of assessment, and in addition the pressure the workers exert on the management through material interest, to see that management looks after all sides of the work process, operations management, and effects in the enterprise. Third, I am showing here a certain side effect of a more general nature, that is, the joining of partial standards of measure (measures on the enterprise scale) into overall measures (measures on the scale of the national economy), owing to their better quality, will lead to a higher quality of standard of measurement on the scale of the national economy.

Another problem -- but this is at the same time one of the basic questions of the Polish economic reform -- is the incentive system. It is said quite correctly that this problem has not been adequately resolved.

We should agree that in our economy we have never had a good incentive system. There were always grave inadequacies. But today this incentive system has just about broken down altogether. This was because of the forced wage increases in 1980-1981, on the one hand, and because of the wage-price operation introduced as of 1 February 1982, on the other. This operation, I believe, was based on two misassumptions or faulty hypotheses*. The first was, by way of understanding, the use of prices rather than wages (income) as a basis to start with, which did not make it possible to set up a proper system of prices in terms of the ratios between prices for specific goods and services. The reverse, that is, to start with wages, would have made it possible to improve the wage structure somewhat, and the "picture" thus derived of additional demand through the increase in prices, owing to the maneuver's great wage margin, would have created the possibility of improving price ratios**. Another assumption concerned the adoption of the method of income satisfaction for the price increases. The method adopted was that of what is called per capita compensation, and as a result this system of income was separated from work, which means that in effect what was being paid for was not work but living. In this way the incentive function of the wage system was destroyed. It stopped serving as an incentive for productivity and greater management effectiveness. Other factors, especially those stemming from the differences in various enterprises in the scale of profits paid out and their distribution as additional incentive elements, along with the lack of any basic incentive element in the wage system, caused an increase in phenomena which were highly unfavorable to the national economy, that is, excessive turnover of workers and disruption of the labor market.

Our country's national economy needs a general wage reform in terms of the ratios and structure, and, as everyone knows, this is taking place. In my opinion, the reform must be made centrally on the basis of general, uniform criteria stemming from the basic principle of distribution in a socialist economy, that is, according to the principle of the quantity and quality of work. Any reform of the wage system cannot be carried out by the enterprises themselves. The wage system reform carried out by the enterprises under the conditions of the current socioeconomy system could lead to greater inflationary processes and to further worker turnover. The sphere of wages and income is one of the basic instruments of effective planned steering of the economic processes.

*I wrote about another concept of solving the wage and price problem in: "Proposal for Wage and Price Reform," NOWE DROGI, No 12, 1980, pp 115-160.

**Some questions in the realm of price policy in the current situation are difficult to understand. For example, rugs were on the market before ration coupons, and they disappeared from the market along with the elimination of rationing for them. Instead of regulating the price and thereby increasing budget revenues for the state, we filled the pockets of speculators.

In the deliberations and discussions concerning our economy and the processes of the reform, we should remember Lenin's very wise statement: "It is facts and not dogmas that are the basis of the political economy of socialism." This statement should serve as a methodological directive. It seems that in our discussions on the economic reform, there are too many dogmas from a source already historically dried up.

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